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ABSTRACT

The Department of Career and Vocational Education of the Montgomery County Public Schools (MCPS), Maryland offers students a variety of services to help develop awareness, explore options, and prepare for career roles. In the spring of 1983, three career components were evaluated by the Department of Educational Accountability: (1) the Executive Internship Program for selected eleventh and twelfth graders, started in the 1970's; (2) the School-Based Internship programs offered in many MCPS high schools since the 1960's; and (3) the Career Education Infusion Process (at the secondary level), which integrates curriculum with career education objectives for grades K-12 and was initiated in 1982. Quantitative survey research methods were used to collect data on the two internship programs from participants, parents, sponsors, guidance counselors, and school coordinators. Semi-structured interviews of teachers, principals and other staff were used for the infusion process program. The study found the two internship programs strong and successful as of May, 1983, however, findings on the Career Education Infusion Process indicated little progress, and many barriers to the implementation process. An addendum contains a rejoinder by the Department of Career and Vocational Education Staff with charts of the career education guidance and instruction components. (BS)

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PUBLIC SCHOOLS
ROCKVILLE, MARYLAND

An Evaluation of Three Components of the Career Education Program in the Montgomery County Public Schools

December 1984

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MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

AN EVALUATION OF THREE COMPONENTS OF THE CAREER EDUCATION PROGRAM IN THE MONTGOMERY COUNTY PUBLIC SCHOOLS

by

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EXECUTIVE SUMMARY

BACKGROUND

The Department of Career and Vocational Education offers a variety of services aimed at providing students with opportunities to develop self- and career awareness, explore a variety of career options, and choose and prepare for appropriate, satisfying, and potentially changing career roles. Included are career education courses, internships, collaborative efforts with businesses and the community, materials development, and a career infusion process.

At the request of the department, an evaluation was conducted of selected career education initiatives in the spring of 1983. Using funds made available from the Maryland State Department of Education, the evaluations examined the Executive Internship Program, the School-based Internship Programs operated by the system's high schools, and the status of the Career Education Infusion Process. The major purpose of the evaluations was to determine the strengths and weaknesses of each of the initiatives; to identify, if possible, models for service delivery; and to make recommendations regarding future activities. The programs and the questions addressed by the evaluation studies are described below.

EXECUTIVE INTERNSHIP

Since the early 1970s, the school system has operated the Executive Internship Program for selected students in Grades 11 and 12. The program allows students to spend four days a week interning with an executive or manager of a federal, state, or local agency; a business; or a service organization. Students receive academic credit for participating. The program is managed and coordinated by the Central Office's Department of Career and Vocational Education.

The evaluation of the executive internship program was summative and focused on the following issues:

- What are the perceived outcomes of the internship in terms of the immediate acquisition of knowledge about organizations and their management and the long-term impact on career decisions, the transition from high school to work or further studies, and the development of personal and social skills?

- What are the perceived strengths and weaknesses of the program, its management and coordination, including the opportunity costs of participation?

SCHOOL-BASED INTERNSHIP

Beginning with the late 1960s, many high schools in MCPS have offered students the opportunity to engage in school-based internships in which participants work as interns in community organizations, businesses, and local industries or in scientific research organizations. Typically, participants spend between four and ten hours per week interning. They usually receive academic credit for participating. Not all high schools offer internship programs. Those that do are managed and coordinated by each school and are governed by guidelines contained in an administrative manual (MCPS, 1971).

This study of the School-based Internship Programs was also summative. It sought answers to several broad evaluation questions:

- o Which of the high schools in MCPS offer school-based internships and who participates?
- o What are the types and the range of internships offered by the schools?
- o What are the benefits and outcomes for participants?
- o How effectively are the programs managed and coordinated by the schools?

CAREER EDUCATION INFUSION PROCESS

MCPS has developed a process and a set of support materials to integrate or infuse the K-12 curriculum with career education objectives. The Career Education Infusion Process, as it is called, seeks to teach career education not as a separate subject but as an integral part of the academic curriculum building on subject matter objectives. It is one of the major tools developed by MCPS to attempt to ensure student attainment of the world of work competencies included in Project Basic and helps meet the requirement of Bylaw BA.04.09 dealing with career planning, resume writing, and interviewing skills.

At the time of this evaluation, implementation of the infusion process was in its very early stages. In the fall of 1982, resource materials, developed by MCPS, were distributed to the schools. Staff development and in-service training directed at the implementation of the curriculum infusion process and its resources have been offered to educators in the school system, including central and area office personnel, principals, and teachers.

This evaluation was formative in nature, designed to study the extent of its implementation in the secondary schools in MCPS as of May, 1983, and to determine what variables influence its adoption by the educators in the system. It should be noted that due to existing constraints, the study did not look at the infusion process in the elementary schools, where many of the efforts are directed. Conclusions regarding implementation must, therefore, be limited to the secondary level. Specifically, the study was structured around the following evaluation questions:

- o Does sufficient support exist within MCPS to bring about the implementation of the Career Education Infusion Process?
- o What have been the effects of the in-service training and resources provided to the educators in MCPS regarding the process of infusion?
- o What support and leadership have been provided by central and area

office personnel and has this support/leadership been effective?

- To what extent is curriculum infusion with career education concepts actually taking place in high school classrooms?

METHODOLOGY

The studies of the two internship programs were conducted, using, for the most part, quantitative survey research methodology. For the Executive Internship Program, surveys were constructed and administered in May, 1983, to the spring (1983) participants and their parents and sponsors, as well as to a sample of former interns from the four preceding years (1979-1982). In addition, interviews were held with interns at the close of the 1982-83 school year.

For the school-based internship study, surveys were administered to all guidance counselors in the 22 high schools in MCPS and the school coordinators of the internship programs. At the same time, six target high schools were selected for a more intensive study of the school-based internships. (These same six high schools, augmented by the addition of three middle and four junior high schools, were used to study the implementation of the Career Education Infusion Process.) In the six target schools, all spring, 1983, participants were administered a survey, as were their parents and their internship sponsors. In addition, at each target school, a sample of nonparticipating students and their parents were also surveyed concerning their knowledge of and attitudes toward the internship programs sponsored by the schools.

The study of the implementation of the Career Education Infusion Process was conducted using semi-structured interviews with a sample of teachers in 13 target schools (six high schools, four junior high schools, and three middle schools) and the principals in each of the schools. A total of 71 teachers were interviewed plus the 13 principals. In addition, semi-structured interviews were conducted with a sample of eight Central Office subject matter coordinators and 18 area office supervisors and teacher specialists drawn from the three area offices. The target schools were chosen on the basis of geographic location, scores on the California Achievement Tests, the percentage of minority enrollment, and on the basis of their past level of involvement with career education.

FINDINGS

The study found that two of the components, the Executive and the School-based Internship Programs, are strong programs that are successfully meeting the career education needs of the participants. They offer students in MCPS significant opportunities to learn about careers and their own vocational interests and to develop important work habits and skills. The third component, the Career Education Infusion Process, is more problematic. Despite the fact that the process has only recently been fully introduced to the schools, the lack of progress to date and the attitudes toward implementation evidenced in the interview data suggest that some important barriers to implementation exist.

Presented below is a brief summary of the important findings for each of the three studies.

EXECUTIVE INTERNSHIP PROGRAM

- The Executive Internship Program serves about 35-40 students each semester. Participants are drawn from each of the 22 high schools in MCPS. For the spring, 1983, semester, about two-thirds of the interns were female, most were seniors, and over 90 percent were college-bound.

- Interns are sponsored by a variety of organizations, including local and federal judicial systems, health and scientific research organizations, human service agencies, and arts and performing arts groups in the county. Interns perform a variety of work in these organizations, frequently working alongside an executive or manager doing what the interns describe as "significant work tasks."

- Interns, their parents, former interns, and sponsors all place a high value on the internship as a learning experience. The internship is seen as a rich opportunity to learn important work habits and attitudes and to develop and strengthen communication skills.

- The internships also appear to provide participants with ample opportunities to learn about organizational functions, such as policy development, organizational communication, and decision making.

- Interns, their parents, and the former interns view the experience as having a significant impact on the intern's development of self-awareness and self-confidence and on their interpersonal skills.

- Seventy-five percent of the interns indicated that the internship significantly influenced their career plans. Eighty-six percent of the former interns reported that their internship positively influenced their career and/or study plans. Parents of spring, 1983, interns described increased amounts of discussion at home about careers, career plans, and goals during the time in which their child participated in the internship.

- Some of the extra benefits associated with participation in the program include opportunities for full- and part-time work, letters of recommendation for use in college or employment applications, and advice on schooling or training needed for certain careers. Many of the former interns reported establishing continuing mentor relationships with their sponsors, who provided the interns with advice and guidance regarding career plans and scholastic pursuits.

- Sponsors also benefit from their participation in that it offers them and their organizations opportunities to improve their public image and to establish contacts with the schools in the community.

- Interns, their parents, and the sponsors perceive the program to be effectively managed and coordinated. The few problems that do occur are perceived to be efficiently handled by the program coordinator.

- Communication with the parents about the program and their child's work performance appears to be a minor problem. A small number of parents reported not receiving information about the program, and those that did indicated some dissatisfaction with the level of communication. Over three-quarters of the parents mentioned a desire for more information and feedback about their child's work performance.

SCHOOL-BASED INTERNSHIP

- Fifteen of the 19 high schools responding to the survey reported offering a school-based internship program in their program of studies. Schools differ in the number of interns they report for a given semester. The average number of interns sponsored during the spring of 1983 semester was 20; the range was between six and 38 interns.

- Many schools lump together external and internal placements when reporting the number of student interns. At this point, it is not known how many students are placed in organizations outside of the school system and how many are placed in the school as office or media center aides, receptionists, or lab assistants. It appears that as many as 25 percent of the reported interns are placed in assignments within the school or school complex.

- Almost two-thirds of the spring 1983, interns in the six target schools reported obtaining placements in scientific or technological organizations. Other placements included human services organizations (police, hospitals), local businesses and industry, fine and performing arts organizations, and a small number of placements in county governance organizations.

- Almost equal numbers of females and males participate; over 85 percent were in the twelfth grade, and about 88 percent of the spring, 1983, participants were college bound. The data obtained from this evaluation suggest that the school-based internship programs may be primarily serving high-achieving, motivated, college-bound students, especially those planning careers and/or postsecondary studies in science and technology-related fields.

- The interns, parents, and sponsors all exhibited very positive attitudes toward the school-based internship program as learning experiences. A majority of those queried view the internships as a significant opportunity to strengthen and develop work skills and habits, develop personal and social skills, and learn about careers.

- Over three-quarters of the interns and parents rated the internship as "helpful" or "very helpful" in developing self-awareness and self-confidence. In addition, almost two-thirds of the parents reported increased amounts of discussion in the home about careers, jobs, career plans, and job-holding behaviors, which they would associate with their child's participation in the internship programs.

- Interns and sponsors were also quite positive in their ratings of the school-based internships as a means of learning about careers, jobs, and one's personal interest and aptitudes for certain occupations. For example, over 75 percent of the interns and their sponsors rated the internship as "helpful" or "very helpful" as a means of exploring career interests, learning about one's personal strengths and attitudes, and learning about the education and training required for various jobs.

- Moderate and probably sufficient supervision and guidance are being provided by school personnel to both participants and sponsors. Sponsors reported regular contact between the schools and themselves; they also reported receiving what in their view was adequate support and assistance from the schools.

CAREER EDUCATION INFUSION PROCESS

Very few of the classroom teachers interviewed in the 13 target secondary schools were routinely infusing the curriculum with career education learning concepts. The barriers identified in this study to a more widespread adoption of the infusion process are briefly summarized here.

- The attitudes of educators in MCPS toward career education and the need for career education programs and services in the schools are relatively positive. However, career education and the infusion process are not perceived as a high priority for the school system's senior administrators. As a consequence, the central and area office staffs and the schools do not devote sufficient attention to the infusion project.

- To a large extent, the implementation of the infusion process is led by a small staff of professionals in the Central Office's Department of Career and Vocational Education. Subject matter coordinators at the Central Office and the supervisors and teacher specialists in the area offices and the principals have not provided sufficient leadership to the implementation effort. For the most part, their efforts have been limited to the distribution of instructional materials and curriculum guides to the schools. Area office staffs and principals are not providing teacher in-service training to promote the adoption of the process, nor are they providing teachers with curriculum supervision related to the process. As a result, the teachers are not knowledgeable about the infusion process.

- The central and area office subject matter coordinators, supervisors, and teacher specialists are uncertain of the expectations for the roles they are to play in the implementation effort. To some extent, there is disparity between the central office career education staff's expectations for the level of involvement of the area office staff and the actual involvement of the area offices.

- Principals and classroom teachers display considerable frustration with the pressures they experience to implement what they view as "add-on" programs such as the infusion process, while at the same time being held accountable for covering the content objectives of the secondary school curriculum. As a consequence, the career education infusion process has not received the focus and attention needed to fully implement it.

CONCLUSIONS AND RECOMMENDATIONS

Taken together, these studies indicate that at the secondary school level, the internship programs are highly successful and should be expanded; whereas the Career Education Infusion Process is floundering and is in need of reexamination, given the current Board of Education priorities.

Students and sponsors alike have found the internship programs to be a rewarding and positive experience. Students report that their participation not only enriches their school experience in the short run but has had longer-term implications for their career or study plans. The only major shortcoming cited to date is the fact that such internships have been limited in number and focused primarily on higher-achieving and college-bound students.

Such data strongly suggest that MCPS should give serious attention to expanding the opportunities available for participating in internship programs. While it may be premature to require that all students participate in such a program as part of their secondary school experience, it seems appropriate to give the program increased visibility and to encourage greater student participation. Such increased emphasis would also be consistent with some of the recent recommendations by commissions studying the secondary schools, which have advocated mandatory community service as a part of the senior high school learning experience.

The picture with regard to the Career Education Infusion Process is very different. While secondary school staff generally have a very receptive attitude toward the idea of career infusion, they perceive the process as an added burden and do not seriously consider it to be an integral part of their teaching responsibilities. Further, they feel that the system itself places little real emphasis on the infusion process and is not particularly concerned about whether it is implemented or not. The study shows that the career infusion process is given no more than token consideration in all but a very few secondary schools.

Although the evaluation was conducted during the first year of implementation, the data strongly suggest that the importance of the process as a part of the MCPS curriculum has not been communicated. This finding raises some serious questions about the future of the Career Education Infusion Process at the secondary level. If the system desires to implement the process, then its value must be reaffirmed. And, additional emphasis, especially in the form of staff training, should be provided. If the system is no longer interested in implementing the process and feels that the

Project Basic and bylaw requirements can be met in other ways, then this must be communicated both to program staff and the schools so that efforts currently going into the process can be redirected. Whatever the decision, it is clear that the present situation, characterized by conflicting messages, should not be allowed to persist, as it is counterproductive both for staff who are trying to carry out the process and schools who feel torn in several directions at once.

ADDENDUM

When staff of a program being evaluated are not in total agreement with the Department of Educational Accountability vis-a-vis findings or recommendations included in a DEA report, the Policy on Educational Accountability provides for staff comments to be included as an addendum to the DEA report.

In accordance with this policy, we provide in this section comments by staff from the Department of Career and Vocational Education which give a different perspective on the report.

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REJOINDER FROM THE DEPARTMENT OF CAREER AND VOCATIONAL EDUCATION STAFF TO AN EVALUATION OF THREE COMPONENTS OF THE CAREER EDUCATION PROGRAM IN MCPS

It is important for the reader of this evaluation report to consider the three components of the evaluation: Executive Internships, School-based Internships, and the Career Education Infusion process as they relate to the total delivery of career education K-12. Career education is delivered through courses, units, community collaborative programs, and guidance and counseling activities. This evaluation study looks at three select, but important parts of the total delivery of career education to students in MCPS (see attached diagram).

The original request by the Department of Career and Vocational Education to the Department of Educational Accountability was for an evaluation of all major components of career education. Reduced funding from the Maryland State Department of Education allowed only certain parts of the career education effort to be evaluated.

The three parts of career education that were selected for evaluation represented: 1) programs that have been in operation the longest, i.e., the school-based internships, 2) a program for which the Department of Career and Vocational Education has direct management responsibility, i.e., the Executive Intern Program and 3) the newest effort, Career Education Infusion, for which the Department of Career and Vocational Education has to rely on many individuals at the local school, area and central office levels to implement, with technical assistance, direction and support from the department.

For a complete summary of the career education effort in MCPS, including the Organizational Structure, Instructional Program, Support Systems, and Planning and Monitoring, the reader is referred to Career Education in Montgomery County, December, 1983, by Research for Better Schools, available from the Department of Educational Accountability.

Staff from the Department of Career and Vocational Education appreciates the excellent support they have received from both area office staff and principals in implementing career education. The extent of support was born out through analysis of the four-year monitoring of career and vocational education programs mandated by MSDE.

Staff from the Department of Career and Vocational Education also extends its appreciation to Dr. Dennis Holmes, associate professor, George Washington University and to the staff of the Department of Educational Accountability, in particular Dr. Joy Frechtling, for their attention to concerns and issues that were raised throughout the study and for such a thorough evaluation of the aforementioned career education components.

Some of these concerns and issues deal primarily with perceptions and assumptions rather than in the way the study was designed or carried out.

The perception of the author of the report, derived from data gathered from semistructured interviews, appears to be based on the premise that unless there is a special priority given to career education, infusion will not occur. Career education was a visible priority for a number of years, beginning with a Board Resolution in 1973. Career education efforts are now becoming institutionalized and no longer require the kind of high visibility that occurred during the seventies. Career education continues to receive appropriate resource support and attention as evidenced in annual budgets. As occurred with both school-based internships, which have been in the system since the 1960's, and the Executive Internship, which is ten-years old; infusion will also take a reasonable amount of time, given adequate direction and continued resources and support, to become institutionalized.

The evaluation study results show that there must be more direction and support for area specialists, principals, and teachers to clarify and strengthen their participation in the infusion process. This increased assistance will be addressed through the development and implementation of Standards for Career Education Implementation. In addition to the Standards, assistance for the "how to" aspects of infusion will be undertaken with school staff, using materials that are now in the schools. These materials include career education objectives and activities which are a part of subject area curriculum guides. These guides were not in the schools at the time of the study.

Although the report repeatedly states that the infusion evaluation was formative and that infusion had been formally underway less than six months at the time of the semistructured interviews, the findings do not appear to take this fact into account to any major degree.

Based on the short implementation frame, as well as the findings in the data, the recommendations appear to go beyond the findings. The second option offered on page 102, in our opinion, is not a viable or reasonable option, given commitments made through the Superintendent's Office which verify that MSDE Project Basic, World of Work competencies occur in this part of the MCPS curriculum. This verification of curriculum match, plus adherence to Bylaw BA.04.09 which provides specific career education skills to students in career planning, resume writing, and interviewing, would make it highly questionable to abort the career education infusion effort. Most infusion of career education objectives occurs at the elementary, intermediate, middle, and junior high school level. There are few objectives, other than those which are state mandated, at the high school level. In light of this, it appears that we should continue to provide support for the newest part of career education, infusion, by building on the beginning implementation strengths, and addressing those areas which require improvement, rather than "throw out the baby with the bath water."

It is obvious from the results of the study that internships offer outstanding opportunities to students to learn about careers, study their own interests and develop important work habits and skills. Staff from the Department of Career and Vocational Education is in the process of refining guidelines for school-based internships and expanding communication about the program to both students and parents, as well as expanding internship opportunities.

We feel that many of the issues raised regarding the Career Education Infusion process will be addressed through the development of Career Education Standards which better delineate expectations and resources for all those who must be a part of this process. Principals, area staff, special education, and Central Office staff are presently providing input to these Standards which will be presented to the Council on Instruction January, 1985.

ATTACHMENT

CAREER EDUCATION IN MONTGOMERY COUNTY PUBLIC SCHOOLS

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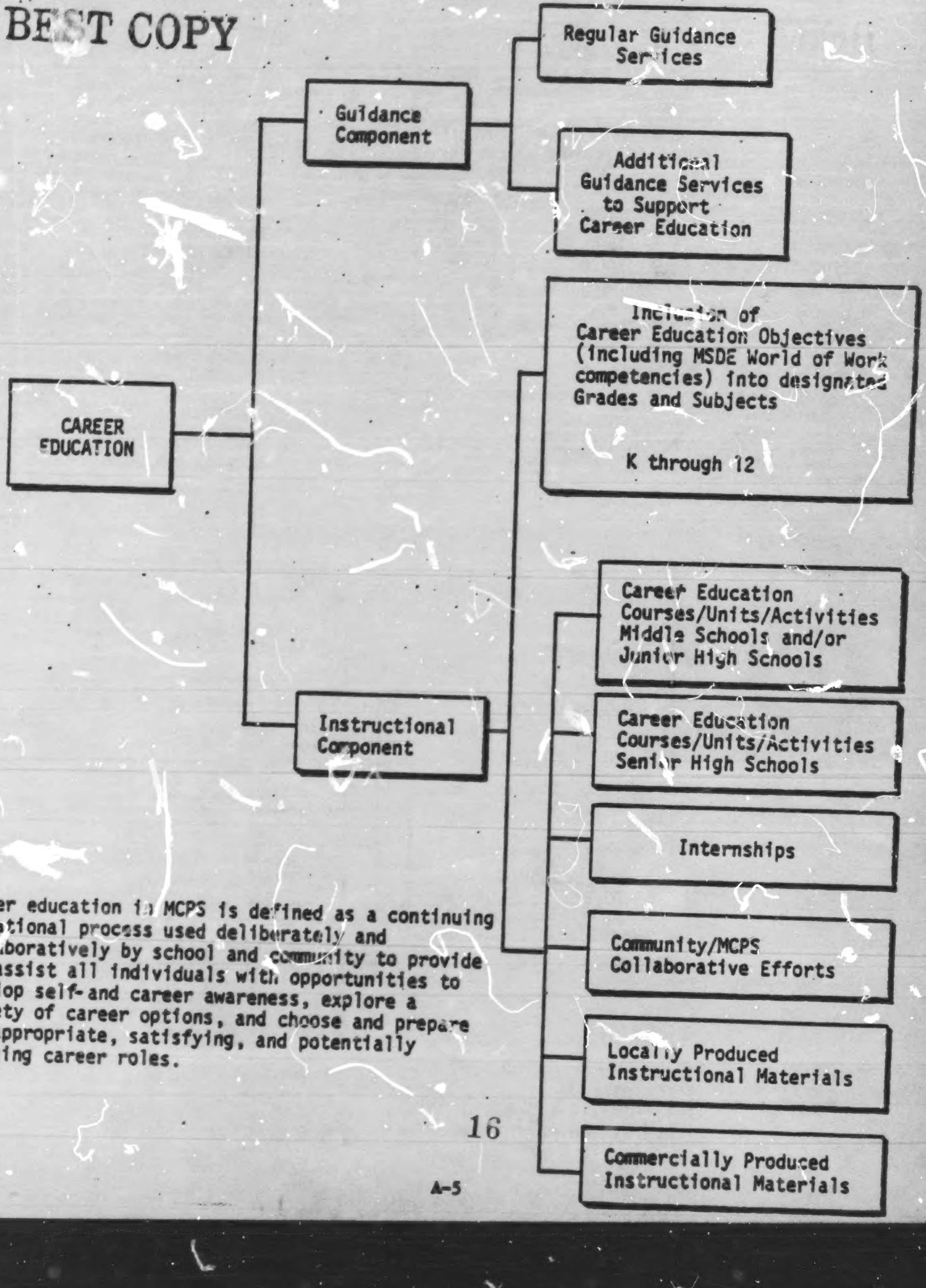
CAREER EDUCATION
Guidance Component
Regular Guidance Services
Additional Guidance Services to Support Career Education
Instructional Component
Inclusion of Career Education Objectives (including MSDE World of Work competencies) into designated Grades and Subjects
K through 12
Career Education Courses/Units/Activities Middle Schools and/or Junior High Schools
Career Education Courses/Units/Activities Senior High Schools
Internships
Community/MCPS Collaborative Efforts
Locally Produced Instructional Materials
Commercially Produced Instructional Materials

Career education in MCPS is defined as a continuing educational process used deliberately and collaboratively by school and community to provide and assist all individuals with opportunities to develop self-and career awareness, explore a variety of career options, and choose and prepare for appropriate, satisfying, and potentially changing career roles.

GUIDANCE COMPONENT OF CAREER EDUCATION

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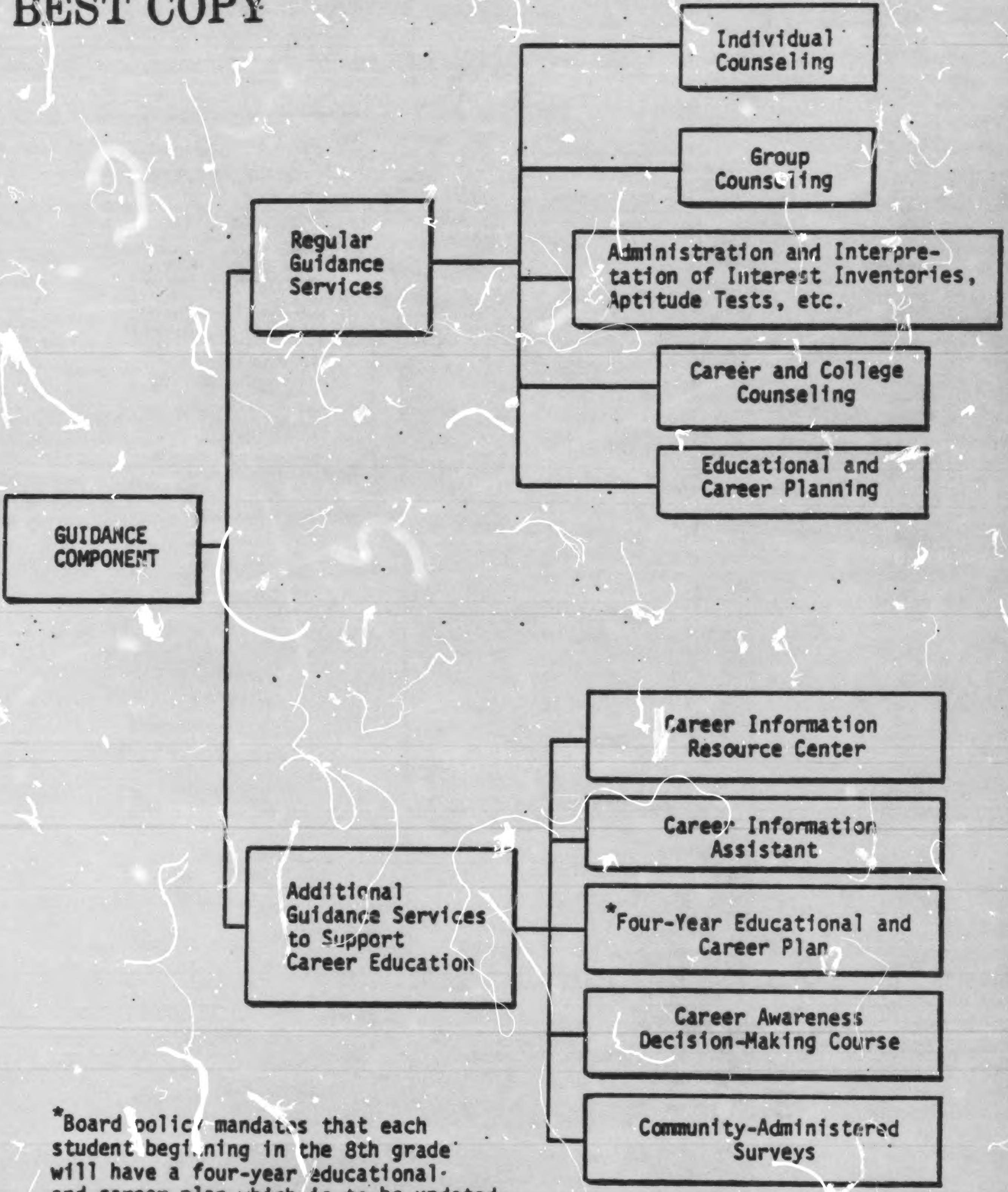
GUIDANCE COMPONENT
Regular Guidance Services
Individual Counseling
Group Counseling
Administration and Interpretation of Interest Inventories, Aptitude Tests, etc.
Career and College Counseling
Educational and Career Planning
Additional Guidance Services to Support Career Education
Career Information Resource Center
Career Information Assistant
*Four-Year Educational and Career Plan
Career Awareness Decision-Making Course
Community-Administered Surveys

*Board policy mandates that each student beginning in the 8th grade will have a four-year educational and career plan which is to be updated yearly and signed by the parent and counselor.

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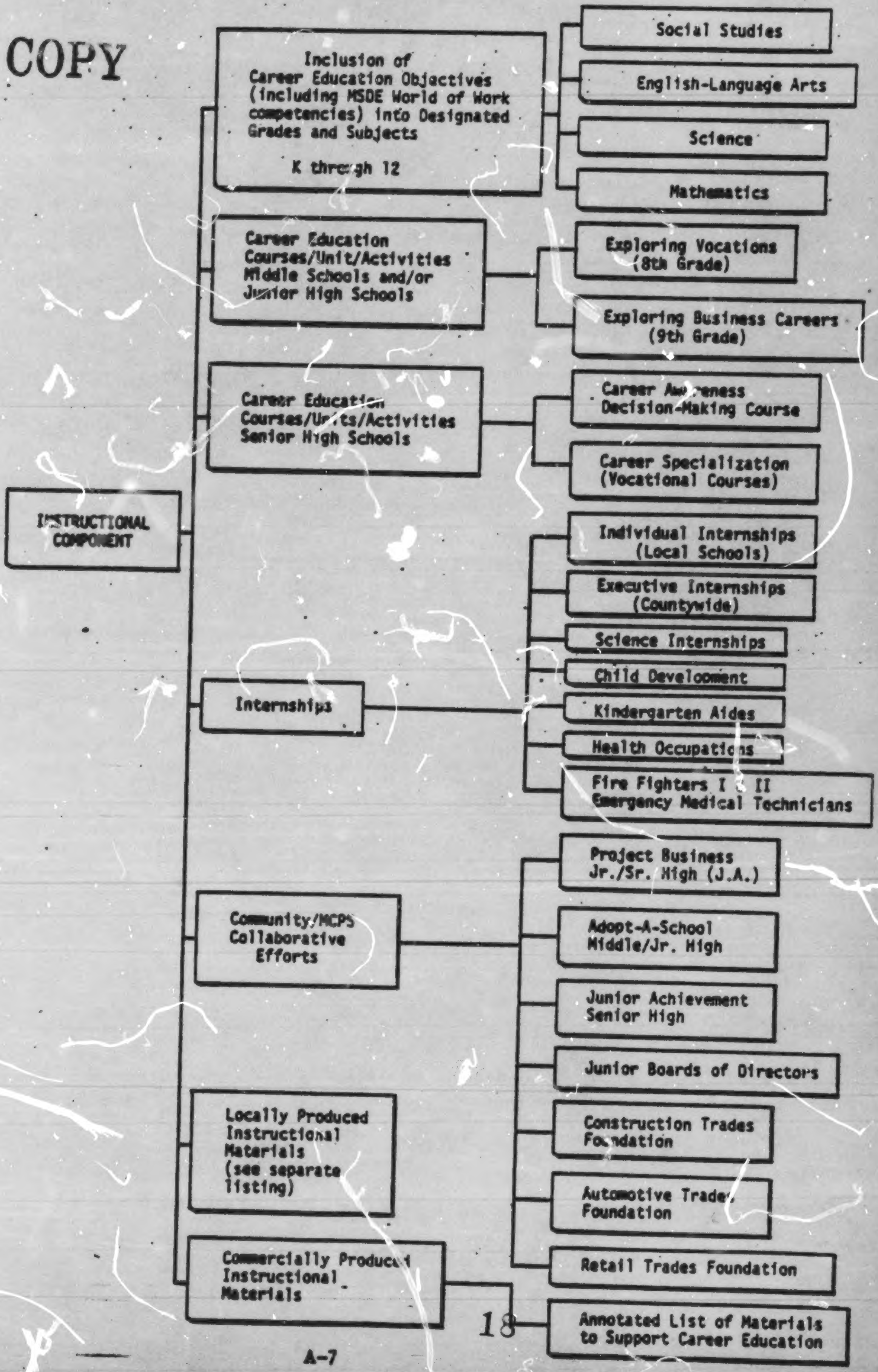
INSTRUCTIONAL COMPONENT OF CAREER EDUCATION


INSTRUCTIONAL COMPONENT
Inclusion of Career Education Objectives (including MSDE World of Work competencies) into Designated Grades and Subjects K through 12
Social Studies
English-Language Arts
Science
Mathematics
Career Education Courses/Unit/Activities Middle Schools and/or Junior High Schools
Exploring Vocations (8th Grade)
Exploring Business Careers (9th Grade)
Career Education Courses/Units/Activities Senior High Schools
Career Awareness Decision-Making Course
Career Specialization (Vocational Courses)
Internships
Individual Internships (Local Schools)
Executive Internships (Countywide)
Science Internships
Child Development
Kindergarten Aides
Health Occupations
Fire Fighters I & II Emergency Medical Technicians
Community/MCPS Collaborative Efforts
Project Business Jr./Sr. High (J.A.)
Adopt-A-School Middle/Jr. High
Junior Achievement Senior High
Junior Boards of Directors
Construction Trades Foundation
Automotive Trades Foundation
Retail Trades Foundation
Locally Produced Instructional Materials (see separate listing)
Commercially Produced Instructional Materials
Annotated List of Materials to Support Career Education

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EXECUTIVE INTERNSHIP PROGRAM

BACKGROUND

Since 1976, the Montgomery County public school system has operated an Executive Internship Program designed to offer students in Grades 11 and 12 an opportunity to receive academic credit for one semester of full-time work as an intern assigned to an executive or administrator of a federal, state, or local government agency or to a business or service organization in the Washington, D. C., metropolitan area. In the program, students spend four days a week working with the sponsor and one day a week in seminars with other interns. The Central Office's Department of Career and Vocational Education coordinates the Executive Internship Program and selects approximately 35 students from those nominated by the schools to participate each semester.

Sponsors complete an evaluation of interns at the completion of each internship cycle. The interns also complete an end-of-program survey. Both of these evaluations are synthesized and summarized by the program coordinator and kept on file in the Central Office.

Some evaluation of this program has already taken place. In 1980, the program coordinator conducted a follow-up study of interns who had participated in the program prior to 1980, focusing on the perceived impacts and outcomes of the internship experiences in terms of personal, social, and academic growth.

This evaluation is a follow-up and extension of the study completed in 1980.

While the end-of-program evaluations and the 1980 follow-up study provide some data relating to perceived outcomes and program effectiveness and suggest that both present and former interns rate the experience positively, there has been a need for a more thorough and independent evaluation of the Executive Internship Program. This evaluation was summative and focused on the following issues: 1) what are the perceived outcomes of the internship in terms of both the immediate acquisition of knowledge about organizations and their management and the long-term impact on career decisions, transition from school to work or postsecondary studies, and personal and social development; and 2) what are the perceived strengths and weaknesses of the program, its management and coordination, including the opportunity costs of participation.

METHODOLOGY

The primary data sources for this evaluation were surveys administered to all current interns (spring, 1983); their parents; the sponsors of the spring, 1983, cohort of interns; and a sample of former interns from the four preceding years (1979-82). In addition, interviews were held with small groups of interns in May, 1983. These interviews were used to clarify and further explore questions raised in the intern survey. Two important issues among others raised in the group interviews concerned the types of activities engaged in by the interns at the work site and the perceived benefits of participating in the Executive Internship Program versus the trade-offs of being out of school a full semester.

Surveys were administered to all interns during one of the weekly seminar sessions held at the conclusion of the spring/1983 internship. Parent surveys were mailed to all parents of the spring/1983 cohort of interns. Twenty-three of the 38 parents returned the surveys. Despite the fact that only 61 percent of the parents responded to the survey, the mix of interns for whom the parents responded appears to be representative of the entire group of interns in terms of age, sex, and grade level. In addition, surveys were sent to each of the organizations sponsoring an intern during the spring of 1983. Twenty-six sponsors returned the surveys. This represents a 76 percent return rate because six of the organizations returning surveys sponsored more than one intern. Surveys were also mailed to 210 former interns who had participated in the internship program during 1979-82. Eighty-six (41%) former interns returned the survey. Despite two follow-up mailings, the relatively low return rate for the former interns is attributable to the mobility of the group, including the fact that many of them have moved several times since their graduation from high school.

The surveys completed by the 1982-83 interns, their parents, and their sponsors focused on the perceived benefits and outcomes of participating in the internship program as well as the perceived strengths and weaknesses of the program and its management and coordination. The former interns survey focused only on the perceived benefits and the short- and long-term outcomes of participation in the program.

FINDINGS

One of the focusing questions of this evaluation was concerned with who participates in the Executive Internship Program in MCPS. The surveys administered to the 1982-83 interns and the former interns contained several demographic questions, as well as a question regarding the interns plans for work or study following graduation from high school. (For the former interns, this question took the form of in what activity they are currently engaged.)

Thirty-eight students from 20 of the high schools in MCPS participated in the Executive Internship Program during the spring of 1983 (Exhibit 1). This is typical of the semester enrollment for the program since it began in 1976. Almost two-thirds of the spring/1983 interns were female students (65.8%); most of the interns were either 17 or 18 years old (84.2%). A smaller proportion were 16 years old. Historically, the internship tends to draw its participants from the twelfth grade, with a smaller number of students opting for participation during the junior year, or eleventh grade. During the spring of 1983, 34 of the 38 interns were seniors.

Almost all (94.7%) of the spring/1983 interns planned college or university studies following their graduation from high school; two of the interns indicated plans for full-time work or a combination of work and part-time study. Almost three-quarters (74.4%) of the former interns responding to the survey reported engaging in full-time study following high school graduation; a smaller proportion were working full-time (11.6%) or combining part-time work and study ([illegible]).

EXHIBIT 1

Characteristics of the Spring/1983 Executive Interns (N = 38)

	N	%*
Sex		
Male	13	34.2
Female	25	65.8
Age (Years)		
16	6	15.8
17	21	55.3
18	11	28.9
Plans Following High School		
Full-time study	36	94.7
Full-time work	1	2.6
Other	1	2.6
Concurrent Involvement in Other Academic Coursework During Internship		
(Supervised)		
Independent Study	5	13.2
Advanced Placement Classes	5	13.2
Regular Academic Classes	7	18.4
Night Classes for Academic Credit	2	5.3

*In some cases the numbers on exhibits do not add up exactly to 100 due to rounding errors or missing cases.

Most of the interns reported they usually participated in extracurricular, school-sponsored activities such as sports, publications, and student government. Twelve of the interns indicated having to forego playing a sport as a condition for participating in the internship program; eight interns reported foregoing participation in school publication activities (i.e., newspapers, annual staff). Over half (52.6%) of the interns reportedly gave up opportunities to participate in advanced placement courses in order to take part in the spring/1983 internship program. It is interesting to note, however, that almost all of the interns (92.1%) indicated that their experiences in the internship program were worth the price of foregoing involvement in these other activities.

CHARACTERISTICS OF FORMER INTERN RESPONDENTS

Exhibit 2 describes the characteristics of the 86 former interns responding to the survey. The sample contains more females and more Grade 11 interns than would be expected. In addition, it contains uneven proportions of respondents from each of the internship cohort groups for the years 1979-82. To some extent the sample may contain some bias and, as a result, limit the extent to which the data could be generalized.

Almost three quarters of the interns were engaged in full-time study following their graduation from high school. All of the 1979 cohort responding to the survey were now employed in full-time jobs.

CHARACTERISTICS OF THE INTERNSHIP EXPERIENCE

Interns in the Executive Internship Program are typically placed in business or service organizations in the community. In many cases, interns are sponsored by public officials and by professionals in private practice. Exhibit 3 displays the range of internships for the spring/1983 cohort of interns. The types of internships offered for the spring of 1983 are typical of those historically offered during the last six years.

The interns spend four days a week at the internship site. For the most part, the interns work alongside an executive or a manager, participating in meetings, completing administrative tasks, and, in general, fully participating in the work at the site. Some of the interns assigned to science-related internships also participate in conducting and managing scientific experiments. Almost all of the spring/1983 interns described their major tasks at the work site as significant contributions to the work effort of the organization. While it is true that interns also perform some clerical and support tasks such as photocopying, filing, and answering the phone, the amount of time spent engaged in such tasks appears to be moderate. Two-thirds of the interns reported "infrequent" or "very infrequent" involvement in "busy work" type tasks.

EXHIBIT 2

Characteristics of Former Executive Intern Respondent Group
(N = 86)

	N	%
Sex		
Female	51	59.3
Male	35	40.7
Grade in Which Internship Taken		
11th	17	19.8
12th	69	80.2
Year of Internship		
1979	10	11.6
1980	21	24.4
1981	37	43.0
1982	18	20.9
Semester in Which Internship Taken		
Fall	42	48.8
Spring	43	50.0
Activity Since High School		
Full-time study	64	74.4
Part-time study	2	2.3
Full-time work	10	11.6
Part-time work	3	3.5
Other	6	7.0

EXHIBIT 3

Types of Internship for the Spring/1983 Executive Interns

Types of Internship	Number of Interns in Category
Arts, Fine Arts, Theater	6
Legal Professions, Courts	6
Science, Medicine, Research	6
Social Services (Police, School Administrative Systems)	3
Journalism, Television	3
Commerce, Retailing	2
Federal Legislature	3
County Government Offices	3
International Organizations	1
Management (Private Industry)	4

SELECTION OF INTERNS

All of the interns reported learning about the internship program from a combination of peers who had previously participated and from guidance counselors or teachers in the schools. Many had also heard about the program in a presentation made at the school by the program coordinator. Selection appears to be based primarily on school recommendations, the student's application, parental permission, and, to some extent, the match of available internships with the student's background and interests.

While the opportunity to participate appears to be open to all students in MCPS, many students probably do not apply because of the loss of opportunity to take academic coursework or because they need specific academic courses to complete high school graduation requirements. Many of the interns reported that their peers did not apply for the internship program because of the loss of opportunity to take advanced placement or required courses.

The intern selection process and the assignment of interns to sponsoring sites is designed to match the students' interest and skills with the type of work experience available at a site. Both interns and sponsors are interviewed in the process. The potential career interests of the intern are also an important factor in assignment of internships. For some types of internships, such as science-related placements, the student's academic experiences play an important role. The entire process appears to work well. Ninety-four percent of the interns considered the match between their skills or preparation and the type of work engaged in during the internship to be either "fair" or "good," with 60.5 percent reporting a "good" match. Only two of the interns indicated a poor correspondence between their skills and the work assigned to them during the internship. The discussions held with the interns confirm this finding. Most of the interns reported that the work assigned to them in the internship, while stimulating and at times taxing, was not beyond their skills or preparation. They also indicated that the responsibilities and the complexity of their tasks increased as they gained on-the-job experience.

Not all interns were placed in job sites corresponding to their career interest. Several reported seeking placements in organizations engaged in work somewhat divergent from their career or study interests for the purposes of exploring career alternatives.

MANAGEMENT AND COORDINATION OF THE PROGRAM

Several important evaluative questions posed for this study concerned the adequacy of the management and coordination of the program. Survey questions addressing these questions were directed at the 1982-83 participants, their parents, and the sponsors These included questions regarding how interns are oriented to the program, the type and frequency of supervision they receive, and the frequency of communication between the school system and the parents and sponsors.

Participant Orientation

Prior to beginning the internship, all participants attend a series of meetings designed to prepare them for the experience. The meetings, conducted by the coordinator of the program, focus on clarifying the goals and expectations of program participants, the mechanics of the weekly seminars, and the criteria to be used to evaluate their performances on the job. In addition, the orientation program focuses attention on potential side effects of participation in the internship program, such as being isolated from school and peers.

This orientation appears to be effective in preparing the participants for the intern experience. Interns were asked to rate the effectiveness of the orientation program along several important dimensions (Exhibit 4). As shown, the participants gave "effective" or "very effective" ratings to all of the dimensions except "coping with being separated from school and peers." In the latter case, slightly more than one-quarter of the participants indicated that the orientation program was either "ineffective" or "very ineffective" in preparing them for this separation experience.

The issue of learning how to adjust and cope while being separated from the school setting and the peer group was a common theme occurring during discussions with the interns. This could be expected, given that the interns are lifted out of the school and peer environment for most of the semester. This is also the time when the school initiates rituals and activities designed to ease the eventual passage from school to the adult world. Many of the interns complained of "missing out" on some of these important symbolic experiences. There is probably little the internship program could do to reduce this transition anxiety except to recognize that the interns' absence from the school setting probably exacerbates the expected anxiety associated with graduating from high school.

Sponsor Orientation of Interns

Sponsors are also asked to orient the intern to the organization, its mission and its goals. Sponsors are requested to spell out their work expectations for the intern and the criteria to be used to judge their work performance. Slightly over three-fourths of the interns (78.9%) reported receiving an on-site orientation to the internship. Ninety percent of those who had received an orientation gave it an "effective" or "very effective" overall rating. Interns also rated these sessions in terms of whether the sessions helped them to understand the organization's structure and mission and the expectations for their work and performance (Exhibit 5). From the ratings it appears that the majority of the interns believe they are receiving an adequate formal orientation at the work site, particularly as it relates to learning about the structure and mission of the organization, their work tasks, and the personnel with whom they would work. Forty percent of the interns reported that these orientation sessions had not helped them to understand the criteria to be used to evaluate their work performance.

EXHIBIT 4

Intern Ratings of the Orientation Programs

	Effective or very Effective		Ineffective or very Ineffective	
	N	%	N	%
Understanding program goals	38	100.0	0	0.0
Understanding criteria used to evaluate job performance	34	89.5	4	10.5
Approaching internship with realistic expectations	37	97.4	1	2.6
Coping with separation from school and peers	27	71.1	11	28.9
Knowing expectations for participating in weekly seminars	34	89.5	4	10.5

EXHIBIT 5

Intern Ratings of the Orientation Programs

	Effective or Very Effective		Ineffective or Very Ineffective	
	N	%	N	%
Understanding goals and mission of organization	26	86.7	4	13.3
Understanding management and organizational structure	24	80.0	6	20.0
Understanding sponsor's expectation of intern	23	76.7	7	23.3
Understanding assigned tasks and responsibilities	23	76.7	7	23.3
Understanding criteria used to evaluate intern job performance	18	60.0	12	40.0
Understanding personnel structure and personnel with whom intern would work	24	80.0	6	20.0

Weekly Seminars

Interns spend each Friday morning in a seminar conducted by the MCPS coordinator of the program. These weekly seminars focus on discussing aspects of the internship experience, such as how organizations are structured and managed, and on learning how to develop appropriate work behaviors. Time is also spent discussing the problems and experiences of the interns. Once during the semester, each intern is required to make a presentation about his or her internship, covering aspects of the mission and goals of the organization, the structure of the organization, and the management strategies employed by the sponsors. Exhibit 6 reports the ratings given the weekly seminars by the interns. For the most part, the interns rate the weekly seminars as relatively effective across the six dimensions rated. Some of the interns do not find the sessions that effective in helping them to clarify career plans or in helping them to learn about entry requirements for different careers. What they do find effective are the individual presentations by each intern, where the entire group has the opportunity to hear about and discuss the organizational structures, the work, and the management strategies of the various organizations sponsoring an intern. Occasionally, guest speakers make presentations to the interns during the weekly seminars. These guest speakers are also given high ratings by the interns.

Supervision and Guidance

The amount and frequency of supervision and guidance received by the interns are important aspects of an external internship program for high school students. MCPS expects the students to receive adequate supervision from their sponsoring agencies and frequent guidance and feedback concerning their work performance. The responses to the survey questions directed to the interns, their parents, and their sponsors suggest that more than adequate supervision and direction are provided to the interns.

Ninety-four percent of the students reported receiving either "sufficient" or "more than enough" guidance and direction from their site sponsors. For most of the interns, the contact with the sponsor is almost daily. Frequently, the interns are supervised by several coworkers or colleagues of the sponsor. During the discussion held with the interns, many reported developing a close working relationship with their sponsor or some other person in the organization, such that guidance and direction was offered more as an integral part of the relationship, rather than in "formal" sessions. For example, over three-quarters of the sponsors reported providing the intern with work performance feedback in conversations rather than in formal meetings or in written form.

Sponsors of interns also reported meeting frequently with the interns to discuss their work and responsibilities. Almost two-thirds (61.5%) of the sponsors indicated that they met at least once a week with their intern to discuss their work. Over a third (34.6%) met at least twice a week, and 19.2 percent of the sponsors met on a daily basis with their intern. Exhibit 7 displays the types of topics covered in intern-sponsor meetings and the frequency with which the topics are discussed.

EXHIBIT 6

Intern Ratings of the Weekly Seminars

	Very Effective		Effective		Ineffective		Very Ineffective	
	N	%	N	%	N	%	N	%
Solving problems related to the internship experience	7	18.4	22	57.9	7	18.4	1	2.6
Learning about organizational structures and management strategies	14	36.8	30	52.6	3	7.9	1	2.6
Clarifying personal short- and long-range career plans	4	10.5	19	50.0	11	28.9	2	5.3
Learning about skills education and training required of different careers	8	21.0	22	57.9	8	21.1	0	0.0
Gaining insight into characteristics of effective managers or executives	6	15.8	20	52.6	12	31.6	0	0.0
Learning how to get along in a work environment	10	26.3	25	65.8	2	5.3	1	2.6

EXHIBIT 7

Sponsor Ratings of the Frequency of Topics in Sponsor-Intern Meetings

Topic	Frequency Discussed					
	Very Often		Often		Never/Rarely	
	N	%	N	%	N	%
Intern job performance and programs	4	15.4	19	73.1	3	11.5
Application of school learning to internship work	4	15.4	4	15.4	16	61.5
Intern tasks and responsibilities	11	42.3	12	46.2	3	11.5
Interactions with other staff members	4	15.4	13	50.0	8	34.6
Training or education needed for a career related to the internship	7	26.9	12	46.2	5	26.9
Problems that occur with the internship	4	15.4	9	34.6	12	50.0

1982-83 Interns' Perceptions of the Management of the Program

Small-group interviews were held with the spring/1983 interns during May, 1983. The purpose of these interviews was to obtain the interns' perspectives on how the program was managed and organized.

A synthesis of these interviews suggests that the interns view the entire program, including the selection and orientation process, the coordination with the sending schools, and the weekly seminars, as well organized and managed by the MCPS program coordinator.

The interns reported receiving what they view as adequate assistance and supervision from the program coordinator, particularly as it relates to monitoring the types of activities and work in which they are engaged at their work sites. The interns view the communication between the sponsoring organizations and MCPS as adequate to meet the needs of the program. The program coordinator is seen by the interns as accessible and available to help them with problems and issues related to the internship.

From the interns' perspective, few, if any, problems occur in coordinating the students' internship with school programs or responsibilities. Those few problems that were cited, generally associated with high school graduation activities, appear to be efficiently handled by the program coordinator.

Student participation in the Executive Internship Program poses two potential problems for the interns. One has to do with the effects of the isolation and separation from the peer group during an important transition year for high school seniors. Both the 1982-83 intern survey and the interviews sought to gauge the extent to which the internship brings about a sense of isolation for the interns. In the survey, interns were asked whether the internship created problems for them with regard to their relationships with friends and peers. Over two-thirds (65.8%) reported that this was not a problem or only a minor problem for them. Twelve (31.6%) interns indicated this was a problem or a major problem. During the interviews, most of the interns reported some initial difficulty in dealing with the separation from the peer group. Most, however, indicated this became less of a problem as the internship progressed. For one, they established new relationships with the other interns and many reported making new friends from among their co-workers at the internship site.

A second potential problem concerns the potential impact of being away from school and the high school support services during the time when many interns would be making application to colleges and universities. Over 80 percent of the interns reported that participation in the internship program posed little, if any, problem for them in the college application process. Seven of the 38 interns indicated some interference with the application process which they attributed to their absence from school.

Parent Perceptions of the Management of the Program

Parents of the spring/1983 interns indicate they believe the internship program is adequately managed and coordinated by the school system.

Sixty-five percent of the parents indicated that they believe the school system's supervision of the program is either "adequate" or "more than adequate." A small number of parents, four out of 23, indicated inadequate supervision was provided.

Communication with parents about the program may be a weak point of the internship program. For example, 73 percent of the parents reported receiving information about the program (six of the 23 parent respondents indicated that they had not received any information). Of those who did receive information, seven (41.2%) indicated that they were dissatisfied with the level of communication received. A sizable proportion of the parents evidently feel the need for more information about the internship program, particularly the type of supervision their child receives at the work site. On a related survey item, over three-quarters of the parents indicated that they wanted more feedback about their child's work performance at the internship site.

Parents were also asked to indicate whether, in their view, their son or daughter experienced any problems as a result of participating in the internship program. Exhibit 8 displays the results of this set of questions. For the most part, parents of interns view the internship as posing few or only minor problems. About a third of the 23 parents noted that the internship posed some problems for students who wish to participate in school-sponsored activities. Providing transportation to the internship site was a problem also reported by about a third of the parents. Both of these areas, transportation and access to school-sponsored activities, are problems that are inherent to the program and probably little can be done to reduce them.

Sponsors' Perceptions of the Management of the Program

Intern sponsors appear to receive a moderate amount of supervision from MCPS. Almost two-thirds (61.5%) of the sponsors responding to the survey indicated that they had contact with the coordinator "about once or twice" during the internship. The remainder of the sponsors reported contact on at least a monthly basis. This frequency of contact may be adequate, in that many of the sponsors are not first-time participants. In fact, for the spring/1983 cohort, almost two-thirds of the sponsors had participated in the program before. Only two of the 26 sponsors reported being "dissatisfied" with the supervision provided by the school system. In addition, over two-thirds of the sponsors indicated that they received "adequate" or "very adequate" support from the MCPS.

BENEFITS OF PARTICIPATING IN THE EXECUTIVE INTERNSHIP PROGRAM

Perhaps the most important question regarding the Executive Internship program asks what short- and long-term benefits are derived for participants and sponsors. Several survey questions addressing the question of benefits were directed at the 1982-83 participants, the sample of former participants, the sponsors, and the parents of the spring/1983 interns.

EXHIBIT 8

Parent Perceptions of Problems Experienced by Executive Interns

Problem Area	No Problem		Problem		Serious Problem		Don't Know	
	N	%	N	%	N	%	N	%
Participating in school-sponsored activities (sports, clubs, etc.)	14	60.9	7	30.4	1	4.3	1	4.3
Finding time to socialize with friends	18	78.3	5	21.7	0	0.0	0	0.0
Covering additional expenses (lunch, clothes, transportation)	18	78.3	3	13.0	1	4.3	1	4.3
Providing transportation to and from internship site	15	65.2	6	26.1	1	4.3	1	4.3
Arranging for independent study assistance with school faculty	14	60.9	1	4.3	2	8.7	6	26.1

The four respondent groups in this evaluation were asked for their summary evaluations of the value of the Executive Internship Program. The results of these evaluations are reported in Exhibit 9. Over 80 percent of the respondents in each group rated the internship as a "very important" or an "important" learning experience for the participant, with more than 50 percent in each group rating it "very important." The high value that each respondent group places on the Executive Internship Program as a learning experience is consistent with the positive responses to the survey items dealing with both the learning outcomes and the organization and management of the program. Taken all together, these evaluations strongly suggest that all four respondent groups consider the program to be of high quality overall.

The high value placed on the program is reflected further in the responses to two attitudinal questions posed to the four respondent groups. These responses are displayed in Exhibit 10. More than 70 percent of the respondents in each group "agree" or "strongly agree" that the things learned in the internship are as valuable as the things learned in the classroom. More than 40 percent of respondents in each group "agree" or "strongly agree" that most high school students should participate in the internship.

Opportunity to Develop or Strengthen Work Habits

The spring/1983 interns were asked to indicate the extent to which the internship experience provided them with the opportunity to develop and strengthen certain work habits. Exhibit 11 displays the result for this set of survey questions. Apparently, the interns perceive the internship as presenting moderate, if not extensive, opportunities to develop most of the important work-related habits and attitudes listed. Exhibits 12 and 13 indicate the responses of the former interns and the sponsors to the same set of questions. It is interesting to note that after, in some cases, four years, the former interns still look back on the internship experience as a rich opportunity to develop work habits. Sponsors are even more enthusiastic about the opportunities presented by the internship program.

Development of Personal and Social Skills

Interns and their parents were also asked to rate the internship in terms of how the experience affected the development of the intern's personal and social skills. Exhibits 14 and 15 display the results for both intern and parent respondent groups. From the perspectives of the interns and their parents, the internship experience was viewed as having significant impact on the interns' development of self-awareness and self-confidence and on the development of their interpersonal skills or the ability to relate to others. Over 80 percent of the interns and parents rated the internship as "helpful" or "very helpful" in developing these skills. Interns were also asked a series of questions concerning the effects of the internship experience on their ability to communicate with adults in a work setting. Over 81 percent of the interns indicated that the internship helped them speak to adults with more confidence and provided them with opportunities to improve their communication skills.

EXHIBIT 9

Intern, Former Intern, Parent, and Sponsor Ratings of the Value of the Internship as a Learning Experience

	Very Important		Important		Somewhat Important		Not Very Important	
	N	%	N	%	N	%	N	%
Interns	24	63.2	11	28.9	2	5.3	1	2.6
Former Interns	67	77.9	13	15.1	5	5.8	1	1.2
Parents	12	52.2	8	34.8	3	13.0	0	0.0
Sponsors	15	57.7	10	38.5	1	3.8	0	0.0

EXHIBIT 10

Intern, Former Intern, Parent, and Sponsor Responses to Two Attitudinal Questions Regarding the Internship Program

QUESTION: The things learned in the internship are as valuable as the things learned in high school classes.

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
Interns	25	65.8	7	18.4	3	7.9	2	5.3	1	2.6
Former Interns	56	65.1	23	26.7	7	8.1	-	0.0	-	0.0
Parents	8	34.8	9	39.1	3	13.0	3	13.0	-	0.0
Sponsors	26	100.0	-	0.0	-	0.0	-	0.0	-	0.0

QUESTION: Most high school students should participate in an internship as a part of their high school studies.

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
Interns	10	26.3	7	18.4	13	34.2	4	10.5	4	10.5
Former Interns	24	27.9	33	38.4	11	12.8	13	15.1	5	5.8
Parents	4	17.4	8	34.8	7	30.4	4	17.4	-	0.0
Sponsors	16	61.5	8	38.5	-	0.0	-	0.0	-	0.0

EXHIBIT 11

Intern Ratings of the Internship as an Opportunity to Develop or Strengthen Work Habits and Attitudes

Work Habit /Attitude	Extensive Opportunity		Moderate Opportunity		Limited or No Opportunity	
	N	%	N	%	N	%
Dependability	24	63.2	12	31.6	2	5.3
Discretion	23	60.5	8	21.1	7	18.4
Sensitivity to others	21	55.3	14	36.8	3	7.9
Flexibility	34	89.5	2	5.3	2	5.3
Independence	28	73.7	9	23.7	1	2.6
Accuracy	27	71.1	7	18.4	4	10.5
Positive attitudes toward work and responsibilities	27	71.1	8	21.1	3	7.9
Communication—speaking and writing	17	44.7	15	39.5	6	15.8

EXHIBIT 12

Former Intern Ratings of the Internship as an Opportunity to Develop or Strengthen Work Habits and Attitudes

Work Habit /Attitude	Extensive Opportunity		Moderate Opportunity		Limited or No Opportunity	
	N	%	N	%	N	%
Dependability	47	54.7	34	39.5	5	5.8
Discretion	50	58.1	22	25.6	14	16.3
Sensitivity to others	48	55.8	30	34.9	8	9.3
Flexibility	58	67.4	22	25.6	6	7.0
Independence	58	67.4	22	25.6	6	7.0
Accuracy	62	72.1	20	23.3	4	4.7
Positive attitudes toward work and responsibilities	59	68.6	20	23.3	7	8.1
Communication—speaking and writing	40	46.5	30	34.9	15	17.4

EXHIBIT 13

Sponsors' Ratings of the Internship as an Opportunity to Develop or Strengthen Work Habits and Attitudes

Work Habit /Attitude	Extensive Opportunity		Moderate Opportunity		Limited or No Opportunity	
	N	%	N	%	N	%
Dependability	20	76.9	6	23.1	-	—
Discretion	12	46.2	10	38.5	4	15.4
Sensitivity to others	16	61.5	9	34.6	1	3.8
Flexibility	22	84.8	4	15.4	-	—
Independence	17	65.4	9	34.6	-	—
Accuracy	20	76.9	5	19.2	1	3.8
Positive attitudes toward work and responsibilities	23	88.5	3	11.5	-	—
Communication--speaking and writing	10	38.5	13	50.0	3	11.5

EXHIBIT 14

Intern Ratings of the Internship's Impact on Personal and Social Skills Development

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
	N	%	N	%	N	%	N	%
How helpful the internship was in developing:								
Self-awareness	17	44.7	18	47.4	2	5.3	1	2.6
Self-confidence	23	60.5	11	28.9	2	5.3	2	5.3
Decision making	15	39.5	13	34.2	9	23.7	1	2.6
Interpersonal skills relating to others	25	65.8	8	21.1	3	7.9	2	5.3

EXHIBIT 15

Parent Ratings of the Internship's Impact on the Intern's Personal and Social Skills Development

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
	N	%	N	%	N	%	N	%
How helpful the internship was in developing:								
Self-awareness	9	39.1	11	47.8	3	13.0	-	-
Self-confidence	12	52.2	9	39.1	1	4.3	1	4.3
Decision making	8	34.8	10	43.5	3	13.0	2	8.7
Interpersonal skills relating to others	10	43.5	10	43.5	3	13.0	-	-

Similar findings are observed in the former intern survey results (Exhibit 16). This is an interesting finding. The fact that the former interns look back on their experience and continue to view it as "helpful," in many cases "very helpful," in developing their personal and social skills is somewhat unexpected. So much has happened to the former interns in the intervening years that one would expect the responses to be moderate compared to the enthusiastic responses of the current interns. Yet the effect seems to be sustained long after the interns leave the high school setting.

Opportunity to Learn About Organizations and Their Management

The Executive Internship Program is designed in part to provide interns with the opportunity to learn about organizations, how they are structured and managed, and how they function. The experience of working closely with an executive or manager is also designed to allow the intern to observe and learn about how executives operate.

Several survey questions were posed to each of the respondent groups to assess whether, in their view, the internships provide sufficient opportunity to learn about organizational functions and management.

Interns and former interns were asked to estimate how much they had learned during their internship about nine important functions of organizations, such as policy development, personnel administration, and planning. The sponsors were also asked to estimate the extent to which the internship in their organization provided the student intern with opportunities to learn about these nine functions.

Exhibits 17, 18, and 19 report the responses of these three groups. Exhibit 17, for example, displays the interns' responses. It is apparent from the distribution of the responses that the internship provides the students with moderate opportunities to learn about a variety of organizational functions. The budget process and personnel administration were two areas for which a majority of the interns reported learning little or a limited amount. However, over 60 percent of the interns indicated learning either a "moderate" or a "considerable" amount about policy development, goal setting, organizational communication, and relations with the public. The response patterns obtained for the former interns and sponsors were very similar to those obtained for the interns and tend to confirm the findings that the internship experience provides significant opportunities for students to learn about how organizations function and are managed.

The responses to two related questions serve to underscore this finding. Interns and former interns were asked whether the internship provided them with opportunities to observe how organizations make decisions. Over 73 percent of the interns, and 83 percent of the former interns, indicated they had either moderate or extensive opportunities to observe decision making. In addition, over 80 percent of both the interns and the former interns reported gaining moderate to extensive insight into the characteristics of effective managers or executives as a product of the internship experience. Former interns

EXHIBIT 16

Former Intern Ratings of the Internship's Impact on Personal and Social Skills Development

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
	N	%	N	%	N	%	N	%
How helpful the internship was in developing:								
Self-awareness	36	41.9	40	46.5	8	9.3	2	2.3
Self-confidence	55	64.0	22	25.6	8	9.3	1	1.2
Decision making	32	37.2	34	39.5	17	19.8	3	3.5
Interpersonal skills relating to others	60	69.8	15	17.4	9	10.5	3	2.3

EXHIBIT 17

Intern Ratings of the Effects of the Internship on Learning About Organizational Functions

	Interns Learned:							
	Considerable Amount		Moderate Amount		Limited Amount		Little or Nothing	
	N	%	N	%	N	%	N	%
About how organizations:								
Develop policy	12	31.6	13	34.2	7	18.4	6	15.8
Identify priorities and set goals	18	47.4	17	44.7	3	7.9	-	-
Identify and secure resource/develop budgets	4	10.5	8	21.1	16	42.1	10	26.3
Plan/implement programs	11	28.9	13	34.2	10	26.3	4	10.5
Deliver/market products and services	12	31.6	8	21.1	4	10.5	12	31.6
Administer personnel	6	15.8	10	26.3	6	15.8	16	42.1
Develop strategies for change	11	28.9	10	26.3	13	34.2	4	10.5
Establish lines of communication	23	60.5	11	28.9	2	5.3	2	5.3
Develop and maintain public image	12	55.3	7	18.4	7	18.4	3	7.9

EXHIBIT 18

Former Intern Ratings of the Effects of the Internship on Learning About Organizational Functions

	Former Interns Learned:							
	Considerable Amount		Moderate Amount		Limited Amount		Little or Nothing	
	N	%	N	%	N	%	N	%
About how organizations:								
Develop policy	20	23.3	35	40.7	19	22.1	12	14.0
Identify priorities and set goals	29	33.7	32	37.2	20	23.3	5	5.8
Identify and secure resource/develop budgets	25	29.1	18	20.9	20	23.3	23	26.7
Plan/implement programs	35	40.7	26	30.2	16	18.6	8	9.3
Deliver/market products and services	52	60.5	15	17.4	12	14.0	6	7.0
Administer personnel	17	19.8	26	30.2	21	24.4	20	23.3
Develop strategies for change	22	25.6	33	38.4	19	22.1	9	10.5
Establish lines of communication	39	45.3	32	37.2	9	10.5	5	5.8
Develop and maintain public image	52	60.5	15	17.4	12	14.0	6	7.0

EXHIBIT 19

Sponsor Ratings of the Internship as an Opportunity to Learn About Organizational Functions

	Extensive Opportunity		Moderate Opportunity		Limited Opportunity		Little or no Opportunity	
	N	%	N	%	N	%	N	%
Opportunities to learn about how organizations:								
Develop policy	1	3.8	7	26.9	16	61.5	2	7.7
Identify priorities and set goals	7	26.9	10	38.5	8	30.8	1	3.8
Identify and secure resources/develop budgets	1	3.8	5	19.3	12	46.2	8	30.8
Plan/implement programs	6	23.1	8	30.8	9	34.6	3	11.5
Deliver/market products and services	9	34.6	9	34.6	2	7.7	6	23.1
Administer personnel	1	3.8	2	7.7	11	42.3	11	42.3
Develop strategies for change	5	29.3	9	34.6	7	26.9	5	19.2
Establish lines of communication	9	34.6	12	46.2	3	11.5	1	3.8
Develop and maintain public image	13	50.0	6	23.1	4	15.4	2	7.7

were also asked to estimate the value or importance of this opportunity to learn about organizations in relationship to their future career objective. Over 82 percent of the former interns rated the opportunity as either "important" (40.7%) or "very important" (41.9%). This is an interesting finding, suggesting that these positive effects of participating in the program carry over to the work experiences and post-secondary studies of many of the former interns.

Parallel findings were reported for the parent survey. Over 90 percent of the parents indicated that they believed their child gained moderate to extensive insight into the characteristics of effective managers during the internship.

Opportunity to Explore Career Interests and Goals

Another important program objective for the Executive Internship Program is offering high school juniors and seniors an opportunity to explore further their career interests and aspirations in an actual work setting. Several sets of questions were asked of the interns, the former interns, the sponsors, and the parents to gauge the extent to which the internship offers opportunities for clarifying the career interests of the participants.

Interns and former interns were asked to indicate the influence the internship had on their decision making regarding career goals. Slightly more than 44 percent of the interns reported that the internship experience reinforced their career goals; another 31 percent indicated the internship either helped them decide on a career or helped to change their minds about career plans. Seventy-nine percent agreed that the internship made them aware of job opportunities in the area of their career interest. Very similar findings were reported for the former interns. For example, slightly over 86 percent of the former interns indicated that the internship had a positive influence on their decisions regarding career plans. Seventy-three percent of the former interns indicated that the internship had either a "moderate" or a "great deal" of influence on their choice of a field of study in college.

In the interviews with the interns, the opportunity for career exploration was frequently cited as a major benefit of participation in the program. Many of the interns described frequent discussions with sponsors and coworkers about the careers, job-entry requirements, and the benefits and drawbacks of different jobs and careers.

In a related question, parents were asked whether there was any change in the amount of discussion at home about careers and jobs during the time their child was participating in the internship. Almost three-quarters of the parents reported increased amounts of discussion about specific careers and occupations, career goals, future plans, and job-getting/holding skills.

Sponsors were also asked to rate the internship as an opportunity for career exploration and career education. Exhibit 20 reports the results of the sponsors' ratings. More than 80 percent of the sponsors indicated that interns learned a "moderate" or "a great deal" about jobs, careers, and personal aptitudes and skills as a result of participating in

EXHIBIT 20

Sponsor Ratings of the Executive Internship Program as an Opportunity for Career Education

	Interns Learned:							
	A Great Deal		Moderate Amount		Limited Amount		Little or Nothing	
About:	N	%	N	%	N	%	N	%
The responsibilities of holding a job	16	61.5	9	34.6	1	3.8	-	-
The relationship of school to the work world	13	50.0	7	26.9	4	15.4	2	7.7
Personal strengths and aptitudes as they relate to work	12	46.2	12	46.2	2	7.7	-	-
Working with different types of people	19	73.1	5	19.2	1	3.8	1	3.8
Exploring career interests	13	50.0	12	46.2	1	3.8	-	-
The characteristics various jobs and occupations	7	26.9	15	57.5	3	11.6	1	3.8
The education and training necessary for various careers and jobs	11	42.3	11	42.3	3	11.5	1	3.8

the internship program.

All of these findings suggest that one of the important benefits of the Executive Internship Program is the opportunity to explore and clarify career interests and aspirations with a variety of people, including peers, parents, and coworkers at the internship site. The fact that both the interns and the former interns indicated that the internship had a significant impact on their career decisions serves to underscore and support this conclusion.

EXTRA BENEFITS OF THE INTERNSHIP PROGRAM

This evaluation also sought to identify any extra benefits derived from participating in the Executive Internship Program for both interns and sponsors. Such benefits for the interns might include, for example, opportunities for summer or part-time work or establishing useful community contacts. Interns and former interns were asked to indicate what extra benefits they received as a result of their participation in the internship program. The responses are displayed in Exhibit 21 for the interns and former interns. As the data suggest, a sizable number of both the spring/1983 interns and the former interns report receiving ancillary benefits in addition to actual internship experience. For example, over two-thirds of both groups reported receiving letters of recommendation from their sponsors for use in college and employment applications. Over a quarter of both groups indicated that they had obtained part-time work at the intern site.

One of the other possible benefits of participating in the program is the establishment of a mentor relationship with the sponsor that continues beyond the period of the internship. Former interns were asked whether they had established a continuing relationship with the sponsor in which they looked to the former sponsor for advice and guidance regarding career decisions. Nearly half (48.8%) of the former interns reported such a relationship with their former sponsor, and almost all of them indicated that the relationship had been helpful to them in making important career decisions.

Another possible benefit of participating in the Executive Internship Program is in helping the student with the psychological and social transition from high school to the adult world. The former interns were asked to indicate to what extent the internship experience helped with their transition from high school to work or postsecondary studies. Slightly over half (52.3%) indicated that the internship had been "very helpful"; an additional 33 percent reported it had been "somewhat helpful" in preparing them to make the change. Many of the comments of the former interns reflect this finding. As one young man put it, the internship helped him prepare for "leaving home and school while I still had my family and high school for support."

EXHIBIT 21

Extra Benefits Received by Interns and Former Interns as a Result of Participating in the Executive Internship Program

Type of Benefit	Number and Percentage of Interns and Former Interns Receiving Benefit			
	Interns		Former Interns	
	N	%	N	%
Summer or part-time work	12	31.6	21	24.4
Full-time employment at internship site	4	10.5	4	4.7
Useful community contacts for future employment	29	76.3	40	46.5
Letters of recommendation from sponsor for employment or college applications	28	73.7	60	69.8
Advice from sponsors on schools to attend for training in a special field	17	44.7	55	64.0
Advice on the kinds of experiences or skills needed for a career	25	65.8	N.A.	
Other*	11	28.9	19	21.1

*Included such things as references for job applications, continuing friendships with coworkers; referrals for jobs in other cities, and help with personal problems.

BENEFITS OF SPONSORING AN INTERN

Sponsors report that the major benefits derived from sponsoring interns are the opportunities to fulfill social and community obligations.

Exhibit 22 displays the sponsors' responses to a set of questions regarding the importance of various benefits in sponsoring an intern. The findings suggest that most sponsors do not view the internship as an opportunity to obtain an extra work hand at little or no cost. On the contrary, all of the sponsors reported that sponsoring an intern provides their organization with important opportunities to improve its public image, to teach students about the organization's value to the public, and to serve the community and its schools. Almost two-thirds of the sponsors indicated that the internship program provides them with an opportunity to recruit future employees. An interesting finding is that over three-quarters of the sponsors view the program as an important opportunity to establish and maintain contact with the schools in the community.

Many sponsors took the time to write comments on the surveys about the quality of the program and why they participate in it. For the most part, these comments reflect the perceived importance of the internship program as a linkage between their organizations and the schools in Montgomery County.

The perceived value of sponsoring an intern is perhaps best reflected in the fact that all 26 sponsors indicated that they would consider sponsoring another intern in the future. In addition, all of the sponsors reported that they would recommend the Executive Internship Program to other organizations in the community.

SUMMARY

This report described the results of an evaluation of the Executive Internship Program operated by the Montgomery County Public Schools. The evaluation was conducted during the spring of 1983 and consisted of surveys of current participants in the program for the spring/1983 semester, their parents, the intern sponsors, and a sample of former interns who had participated during the period 1979-82.

The Executive Internship Program serves about 35 students each semester, who are drawn from each of the 22 high schools in MCPS. For the spring/1983 semester, about two-thirds of the interns were female students, most were seniors, and over 90 percent were college-bound. Interns were sponsored by a variety of organizations, including the local and federal judicial systems, private lawyers, health and scientific research agencies, and arts and theater groups in the county. Interns perform a variety of tasks and frequently work alongside an executive or manager. Interns appear to be involved more often in significant work tasks than in "busy work" tasks. The program coordinator selects interns primarily by matching student interest and academic background with available internships.

EXHIBIT 22

Sponsor Ratings of the Importance of Benefits in Sponsoring an Intern

Benefits	Important or Very Important N	Important or Very Important %	Somewhat Important N	Somewhat Important %	Not Very Important N	Not Very Important %
Establishes contact with schools in the community	20	77.0	1	3.8	4	15.4
Helps in recruiting future employees	16	61.6	5	19.2	4	15.4
Lightens workload	0	0.0	4	15.4	22	84.6
Improves community image of the organization	26	100.0	0	0.0	0	0.0
Provides an opportunity for community service	26	100.0	0	0.0	0	0.0
Provides an opportunity for the organization itself to teach students about its value to the public	26	100.0	0	0.0	0	0.0

The major findings of this study are summarized here:

- Interns, their parents, former interns, and the sponsors place a high value on the internship as a learning experience. Throughout this evaluation, evidence was found reinforcing the conclusion that the program is held in high regard by the parents, the sponsors, and, more importantly, by the participants.

PROGRAM OPERATIONS

- The orientation of interns by the program coordinator and the sponsors appears to be effective, although some interns reported inadequate orientation by the site sponsors and 40 percent of the interns reported not being fully informed of the criteria to be used to evaluate their job performance.

- The interns view their weekly seminars, which focus on processing the internship experience and discussing aspects of organizations, as effectively organized and managed and effective as a learning experience. They view the presentations made by the other interns as an effective method of learning about the functions and management of a variety of different organizations. From the perspective of about a third of the interns, the weekly seminars provide limited opportunities to explore careers and career decision making.

- Both the interns and the sponsors appear to be satisfied with the frequency and amount of supervision and guidance provided to the interns. Interns and sponsors meet frequently, often on a daily basis, to review work assigned and to discuss aspects of careers and career preparation.

- Interns, their parents, and the sponsors perceive the program to be effectively managed, coordinated, and supervised. The few problems that do occur are perceived to be efficiently handled by the coordinator.

- Interns experience few problems in completing an internship. The mild sense of isolation experienced appears to be effectively handled by the interns during the course of their tenure as an intern. The positive experience of the internship itself seems to outweigh the loss of opportunity to participate in sports or school club activities.

- However, communication with the parents about the program appears to be weak. Some parents do not receive information about the program and those that do indicate some dissatisfaction with the level of communication. Over three quarters of the parents surveyed mentioned a desire for more information and feedback about their child's work performance at the internship site.

PROGRAM BENEFITS

- Interns, former interns, and the sponsors report the internship provides a rich opportunity to learn work habits and attitudes such as dependability, independence, accuracy, discretion, and sensitivity to others and to develop and strengthen communication skills.

- Interns, their parents, and former interns view the internship experience as having a significant impact on the intern's development of self-awareness and self-confidence and on their interpersonal skills.

- From the perspective of the interns, their parents, former interns, and the sponsors, the internship provides the student with ample opportunities to learn about organizational functions such as policy development, goal setting, organizational communication, and decision making. This area of learning about organization structure and functions appears to be a significant outcome of the internship program.

- Seventy-five percent of the interns indicated that the internship significantly influenced their career plans. Eighty-six percent of the former interns reported that their internship positively influenced their career plans. Parents reported an increase in the amount of discussion at home about careers, career plans, and goals during the time their child participated in the program.

- Some of the extra benefits associated with participation in the internship program include opportunities for full- and part-time work, letters of recommendation for use in college or employment applications, and advice on schooling or training needed for certain careers. In addition, many of the former interns reported establishing continuing mentor relationships with their sponsors, which they found helpful in making career choices. The internship may also be helpful in easing the transition from school to the adult world. About 85 percent of the former interns reported that the internship had helped them with the transition from high school to the college or work environment.

- Sponsors benefit from their participation in that it offers them and their organizations opportunities to improve their public image and to establish contacts with the schools in the community. The social service aspect appears to be the major motivating factor influencing sponsors to participate. All would consider sponsoring another intern and all would recommend the program to other organizations.

RECOMMENDATIONS

This evaluation of the Executive Internship Program has resulted in no substantial recommendations for change. The program appears to be effectively and efficiently managed. The benefits to the students, the sponsors, and the school system are such that the only major recommendation is that the program be expanded to reach more students and community organizations. The dangers in expanding the program are that the quality and the care of its management and coordination might be compromised by increasing the number of interns. In all respects, this is a model program requiring very few resources, basically one full-time staff member and support services, to obtain a significant and high impact on about 75 students per year. The benefits for the school system, in addition to providing a high-quality learning experience for the student interns, are that it engenders a great deal of community goodwill among the sponsoring organizations and among the parents of the interns.

What follows are a few recommendations for fine tuning the program:

- The survey results suggest that some of the interns may not be receiving an adequate orientation from the sponsors. Obviously, this appears to be resolved as the internship progresses in that few of the interns noted this as a problem area. However, an adequate orientation to the work site and the expectations for their performance might reduce initial anxieties and help the interns make the transition from the school to work environments. In meeting with potential and recurrent sponsors, the coordinator may wish to stress the need for an orientation of the new interns.

- The goals for the Executive Internship Program may need revision to reflect the variety of internships available in the program. Not all internships offer the student the same opportunities to observe and learn about organizational functions and executive management. Some of the science and performing arts-related internships offer unusual and exciting opportunities to experience work in these fields, but they do not offer extensive opportunity to observe the management of organizations. They are equally valuable as learning experiences, and this should be reflected in the goal statement for the program.

- Since the college application process usually takes place in the fall, this evaluation of the spring/1983 program may not have adequately assessed the impact of the internship on the application process. The coordinator may wish to monitor the fall/1985 intern cohort to determine if participation and the absence from the school adversely impact on this process.

- Communications with the parents may be in need of some review. Many parents expressed a desire for more information about how well their child was performing and whether he or she was receiving adequate supervision at the job site. Perhaps some form of check list, filled out by the sponsor, could be sent home two or three times during the semester. Parents also should be invited to attend the weekly seminar session when their child is making the presentation on their internship. There is an inherent conflict here, though, between the parents' need to keep informed and the 18-year-old intern's need to experience some sense of independence from school and family in the work setting.

SCHOOL-BASED INTERNSHIP PROGRAMS

BACKGROUND

Since the late 1960s, many of the high schools in the Montgomery County Public Schools (MCPS) have offered students the opportunity to engage in internships in which students are placed in local businesses and industries or government agencies as a part of the school's career education program. The rationale for including internships in the high school curriculum or program of studies is based on the theory that career exploration, awareness, and an understanding of ones own career interests, are promoted by hands-on, practical experience in a work environment.

Internships are programmed and coordinated by each high school in MCPS. The types of internships offered are based partly on the needs and interests of the students and the availability of organizations willing to sponsor an intern and partly on the focus given the internship program by the school. Not all MCPS high schools offer internship programs. Those that do are governed by guidelines contained in the Administrative Handbook on Student Internships (MCPS, 1971). These guidelines outline procedures for selecting students and sponsors, for granting academic credit and assigning grades, and for coordinating the internships at the sponsoring agencies or organizations.

Career education coordinators at the high schools are responsible for coordinating the program, selecting and placing students, supervising interns, and serving as liaisons between the schools and the sponsoring organizations. In cases where a career education coordinator is not assigned to a high school, a classroom teacher is given this responsibility. With regard to science internships, a program offered at several high schools in cooperation with federal science and scientific research agencies, the school's science department coordinates the program.

The present evaluation of the School-based Internship Programs was summative, focusing on the following five broad evaluation questions:

- Which of the high schools in the MCPS system offer internships and who participates in these programs?
- What are the types and the range of internships offered by the schools?
- How effectively are the internship programs managed and coordinated by the schools?
- What are the benefits of participating in a school-based internship program?
- What support and interest exist among the students and parents for school-based internship programs as a career education learning experience?

METHODOLOGY

The design of the study of the School-based Internship Programs utilized two approaches to data collection. One approach involved the development and administration of a survey directed to each of the high schools in MCPS. This survey sought to determine whether the school offered an internship program to its students; and, if so, the survey asked for a description of the spring/1983 participants and the sponsoring agencies, how the program was coordinated and managed, and the perceived strengths and weaknesses of the school's internship program. In addition, the heads of high school guidance departments were surveyed regarding their perceptions about and involvement with the school's internship program.

Both surveys were sent to each of the high schools in May, 1983. Nineteen of the 22 high schools returned the surveys. For the most part, these surveys were completed by either the school's career education coordinator, the career information assistant, or the faculty coordinator of the program. All 22 of the heads of the high school guidance departments returned their surveys.

The second approach to data collection involved the selection of six target schools for more intensive data collection regarding school-based internship programs. (These same six high schools, augmented by the addition of three middle and four junior high schools, were also used to study the implementation of the Career Education Infusion Process.) Questionnaires were developed and administered to the spring/1983 participants in each target school's internship programs, the parents of the interns, and the sponsoring agencies. Among the six target schools, 110 students were engaged in internships during the spring of 1983. One hundred and four of these students completed the survey. Fifty-seven, or 52 percent, of the parents of the interns returned the surveys which had been mailed to them in May, 1983. The return rate for sponsors was slightly more than 57 percent, with many sponsors indicating they were sponsoring more than one intern.

Surveys were also developed and administered to a total of 377 target-school students in Grades 9 through 12 who had not participated in an internship program. These surveys were designed to assess the students' knowledge of the internship program(s) in their school and the students' general attitudes toward internships as a part of the high school program of studies. Students at each of the six target schools were selected to complete the survey by randomly selecting intact social studies classes, one each for Grades 9 through 12.

In addition, for each target school, 30 parents of students who had not participated in an internship program were mailed a brief survey covering the parents' knowledge of the schools' internship programs, their attitudes toward such programs, and whether they would consider an internship as a program option for their son or daughter. The return rate for this survey was low: 31 percent, or 56 out of 180, of the parents returned the survey. Because of this return rate, the survey results of this group must be interpreted with caution.

FINDINGS

One of the important focusing questions of this evaluation was concerned with which of the 22 high schools in the school system offers the internship option and who participates in these internship programs. Surveys were sent to each school asking for a description of the types of internships offered, the selection criteria, and a description of the spring/1983 participants.

Fifteen of the 19 high schools in MCPS responding to the survey reported offering students opportunities to engage in an external internship experience for academic credit (by "external" is meant an internship in an agency or organization other than a school in MCPS). Among those 15 schools, the average number of external interns sponsored during the spring of 1983 was 20. The range, however, was between 6 and 38. With few exceptions, students complete their internships with one placement for the entire semester. Five of the 15 schools, however, reported placing a small number of interns in more than one internship as a part of the semester-long, 18-week internship program.

Six of the schools indicated that internal internships were available for which academic credit was provided. Internal internships were described by these schools as "child development," elementary aide, or educational assistants; and almost all involved serving as an assistant in an elementary school, working in a school library, media center, or the school office. One of the schools reported granting internship credit to students working on student publications (yearbook, literary magazine), participating in school plays, and acting as aides in mathematics classes.

From the reports provided by the schools as well as from interviews with the heads of the guidance departments in the six target schools, it appears that there is some variation among the schools in terms of how they define an internship. Despite efforts in the survey directions to differentiate between the two, many schools lump together external and internal placements so that we do not know how many students actually are placed in organizations and agencies outside of the school system itself. It appears that a sizable number of school-based interns, perhaps as large as 25 percent of the students granted academic credit, are completing internships within the school itself as office aides or media (library) assistants or are assigned to elementary schools in MCPS to work as classroom aides to teachers.

MANAGEMENT AND COORDINATION OF THE INTERNSHIP PROGRAMS IN THE SCHOOLS

The interviews with the heads of the guidance departments in each of the six target schools, plus the survey data for the guidance heads and the program coordinators, suggest that, for the most part, the school's career education coordinator or the faculty member assigned to coordinate the program manages and coordinates the program without much assistance. There is apparently little involvement of classroom teachers or the school's administrative staff and minimal involvement of the guidance staff. The guidance staff report that most of their involvement has to do with helping to identify and advise potential interns (41.7%) and helping to resolve conflicts experienced by interns at their work site (66.6%) (Exhibit 23). Counselors do report, however, that the school's internship program increases their workload: 50 percent of the heads of guidance departments indicated that the

EXHIBIT 23

Heads of Guidance Departments' Reports of Counselor Involvement in Aspects of the School's Internship Programs

(N = 22)

Activity	Percentage Reporting Some or Extensive Involvement	Percentage Reporting Little or No Involvement
Identifying potential student interns	58.3	41.7
Selecting interns from among applicants	4.2	95.8
Recruiting sponsors	12.5	87.5
Visiting and supervising interns at the job site	29.2	70.8
Meeting with interns to discuss their internship experience	50.0	50.0
Solving problems at the internship site	66.6	33.3
Orienting sponsors to the internship program	25.0	75.0

program substantially increased their workload; an additional third of the respondents reported some increase in their workload which could be attributed to the internship program in their school. It is interesting to note that slightly more than a third (33.6%) of the interns reported any interaction with a guidance counselor in choosing to participate in the internship program and that less than half (42.3%) of the interns indicated that they met with a guidance staff member to discuss aspects of the internship experience.

CHARACTERISTICS OF THE SPRING/1983 INTERNS AND THEIR PROGRAMS

The survey results for the 104 spring/1983 interns probably provide the best snapshot description of both the characteristics of the interns and their internship programs. These data come from answers to evaluative questions posed in the survey of who participates in the school-based internship programs and what characterizes the internship experience.

Over 85 percent of the spring/1983 interns were in the twelfth grade, about 88 percent reported plans for college or postsecondary studies following high school, and almost equal numbers of females and males participated in the School-based Internship Programs (Exhibit 24). In terms of their perceived motivation for engaging in the internship (Exhibit 25), there appear to be multiple reasons cited by the interns. However, the one self-reported reason that seems to stand out is the desire to learn about and obtain work experience in a particular field. In addition, almost none of the 104 interns viewed the internship merely as a means of obtaining needed elective credits, which would seem to indicate that the interns have fairly clearcut reasons and, perhaps, personal goals for participating.

Exhibit 26 shows the categories or types of internships reported by the spring/1983 interns. Over 65, or 63 percent, of the interns reported obtaining placements in scientific or technological organizations. The internships included in these two types ranged from veterinarian aide and animal research assistant to assignments at the National Institutes of Health and the National Weather Service. An additional 15 percent of the interns indicated placements in what was broadly categorized as social service occupations. These included assignments with the local police and fire departments, hospitals, and health service providers and with agencies and units of local, county, and federal governments.

These data regarding the types of internships engaged in, plus the data concerning student plans for postsecondary college, suggest that the School-based Internship Programs may be serving to a large extent the high-achieving, motivated, college-bound student. This conclusion is further supported by data which show for whom counselors and internship coordinators believe the internship programs are designed. Exhibit 27 clearly demonstrates that the majority of the guidance counselors and the coordinators view the internship programs as more appropriate for the academically talented and the college-bound student.

EXHIBIT 24

Characteristics of Spring/1983 School-Based Interns

(N = 104)

	N	%
Sex		
Male	50	48.1
Female	54	51.9
Grade Level		
9th	5	4.8
10th	2	1.9
11th	7	6.7
12th	90	86.5
Plans Following High School*		
Military	3	2.9
Work	2	1.9
College	92	88.5
Other	2	1.9

*5 missing cases or 4.8 percent

EXHIBIT 25

Intern Ratings of Their Reasons for Participating in the Internship Program

	Important or Very Important Reason		Somewhat or Not Very Important Reason	
	N	%	N	%
Wanted to learn about a particular career	84	80.7	20	19.3
Wanted general work experience	65	62.5	39	37.5
Wanted work experience in a particular field	81	77.8	23	22.2
Needed elective credit	6	5.7	98	94.3
Wanted to make contacts for future employment	58	55.7	46	44.3
Wanted to make college applications look more attractive	53	50.9	51	49.1
Wanted experience outside of school and classwork	72	69.2	32	30.8

EXHIBIT 26

Types of Internships for the Spring/1983 School-Based Interns

(N = 104)

Types of Internships	Number of Interns in the Category
Science, medicine, veterinary research	38
Computers, technology	27
Social Services (police, hospital aide, planning and zoning office)	16
Art, Fine Arts, theater	7
Commerce, retailing, person services (cosmetology, food service worker), communications, (newspaper, TV)	6
Business, management, accounting, banking	5
Law and related professions (courts, legislatures, county council)	3
Education (day care, school system administration, but excluding teacher aide, library assistant)	2

EXHIBIT 27

Perceptions of Heads of Guidance Departments and School-Based Internship Coordinators Regarding the Target Audiences for the Internship Programs

	Heads of Guidance Departments (N=22)	Internship Coordinators (N=19)
	Percentage	
Academically talented students	70.8	53.3
Students planning to go to college	79.2	73.3
Students planning to go to work directly after high school	37.5	20.0
Students seeking vocational or technical training after high school	41.7	33.3
Potential student dropouts	16.7	11.1

The school-based interns typically enroll for an entire 18-week semester in an internship program. A small minority completed nine- or ten-week internships; an even smaller number - seven out of 104 - participated in a full-year, 36-week internship. Typically, interns spend 10 hours a week or two hours per day at the internship site engaged in what appears to be, from their responses to the survey, significant learning experiences. They complete work tasks under supervision, observe and discuss work situations and requirements with their supervisors, attend meetings and training programs, and generally participate in the work effort of the unit to which they are assigned. About 65 of the interns reported involvement in clerical and support-type functions such as cleaning, typing, filing, marking reports and answering the phone. Slightly under a half (49.0%) reported "frequent" or "very frequent" involvement in "busywork" type tasks.

EFFECTIVENESS OF MANAGEMENT AND COORDINATION OF THE PROGRAMS

The management and coordination of the internship programs was a second evaluative focus of this study. The effectiveness of the internship program at a given school is somewhat dependent on how the program is organized within the school program; how interns and sponsors are recruited, selected, and then oriented to the program; how parents are informed about the internship and the progress of their child; the type and frequency of supervision provided the interns; and the frequency of communication between the school, the sponsor, and the home. Survey questions addressing these important areas were directed at the spring/1983 interns, their parents, the sponsors, guidance personnel, and the coordinators of the program.

PARTICIPANT RECRUITMENT

Program coordinators at each of the high schools sponsoring an internship program were asked how they recruit student interns and sponsors. Making presentations to individual classes and announcing the availability of internships in the school's daily bulletin appeared to be the usual and most frequently used methods of "advertising" the internship program. Several of the schools coordinate the recruitment activity with the science and/or the social studies departments, where the resource teachers for these two subject areas appeared to be extensively involved in the internship program. In many cases, a description of the internship program appears in the school's published course offerings. From the descriptions offered by each of the high schools it appears that all of the schools make an effort, using a variety of communication channels, to inform students of the availability of the internship. This is further substantiated by the fact that over 75 percent of the nonparticipant students responding to the nonparticipant student survey reported knowing about the internship program in their school. The students also reported that they most often learned about the internship program from 1) other students (43.0%), 2) former interns (30.2%), 3) their teachers (24.7%), and 4) guidance counselors.

There appears to be moderate involvement on the part of the guidance departments in identifying and recruiting potential interns. Fourteen of the 22 guidance heads reported some or extensive involvement in this process. Interviews with the six guidance department heads substantiate this. All six reported discussing the internship option with students during individual and group guidance sessions.

SELECTION OF INTERNS

Using the school coordinator's survey results as data sources, grades, demonstrated responsibility, interest and motivation, transportation, and parental permission appear to be the criteria used by most schools to select (or admit) students to the internship program. In addition, 10 of the 19 schools restrict participation to eleventh and twelfth grade students, three schools restrict participation to tenth through twelfth graders, and only two schools open up participation to ninth through twelfth grades.

Several of the high schools described special science or technology internship programs coordinated by their science and/or mathematics departments with research organizations in the Washington metropolitan area. These internship assignments usually require demonstrated talent and achievement in the fields of science or mathematics as well as teacher recommendations to be eligible. One of the high schools also operates a "social studies lab" where students intern in government agencies and social service organizations. The selection criteria for this internship program appear to go beyond those listed above to include high achievement and recommendations by the social studies teachers.

RECRUITING SPONSORS

The schools use a variety of methods to recruit sponsors for their internship programs. Data obtained in the interviews with guidance personnel in the six target schools, plus survey data taken from both the coordinator and sponsor surveys, suggest that the two primary methods used by the schools are 1) direct appeals to local businesses, industries, and government agencies and 2) use of the family members or family friends of students to arrange for internships in their work places. For example, in the spring of 1983, almost 12 percent of the 104 internships were arranged by the student through a family member or a friend or neighbor who worked at the internship site. These two methods appear to be effective. Program coordinators report that while it is difficult to obtain sponsors, they almost always have a sufficient number of sponsors to meet the number of student applicants.

In some cases, a local industry or government research organization has been sponsoring interns for almost a decade. In the spring of 1983, 51 percent of the sponsors indicated they had been sponsors before. In these cases, the schools and the organizations have set up a complementary system to select students with science and technology career interests as well as strong academic backgrounds in these areas.

Participant Orientation

An effective internship program would offer the student interns some orientation designed to prepare them for the experience. The orientation would include a clarification of the goals and expectations of the participants, the mechanics of interacting with the sponsoring organization, and some information on the criteria to be used to evaluate the intern's on-the-job performance. Only one-third (35) of the 104 spring/1983 participants in the School-based Internship Programs reported receiving an orientation from either the school or the sponsor. Of this group of 35, slightly more than half found the orientation "helpful" or "very helpful."

However, almost all of the interns reported meeting, either individually or in groups, with some member of the school staff to discuss the internship program. For the most part, this was either with the program coordinator, a guidance counselor, or the career education teacher. One could assume that some orientation may be taking place in these sessions but probably not enough to meet the information needs of the new intern. This may be a problem area for the school-based internship programs that will require further study to substantiate and clarify.

Sponsor Orientation

Sponsors were asked to rate the helpfulness of the orientation they had received from the school regarding the roles, responsibilities, and expectations of sponsoring an intern (Exhibit 28). The results suggest that, from the sponsor's perspective, very little orientation is offered and what is offered by the school is perceived as minimal or not very helpful. For example, only 10 of the 63 sponsors responding to the survey rated the orientation as helpful in learning how to communicate with the school about the intern. As with the interns themselves, this lack of orientation may be a problem area easily remedied by the preparation of an orientation program for both sponsors and interns or even a conference call between the sponsor, the school, the student, and perhaps a parent.

SUPERVISION AND GUIDANCE PROVIDED

The nature of the supervision and guidance provided to the interns is an important aspect of an effective school-based internship program for high school students. The responses to the surveys directed at the interns and the school coordinators suggest moderate and probably sufficient supervision is being provided to the interns by school personnel. Over two-thirds of the interns report meeting in groups with the coordinator at least twice a month; almost half (47.1%) indicated they met with the coordinator on a weekly basis. In addition, slightly over 31 percent of the interns reported frequent individual meetings with the program coordinator or some other staff member to discuss the internship. Three-fourths of the interns rated these meetings as useful in helping them to explore careers and jobs. For the most part, both the individual and group sessions appear to be focused more on aspects of careers, career exploration, and processing of the internship experience than on solving problems related to the internship.

The supervision and guidance provided by the sponsors appear to be more than adequate to meet the needs of the interns. Over 97 percent of the interns indicated that they believed they were receiving sufficient guidance and direction from their site sponsor. The majority (60.6%) of the interns reported meeting at least once a week with their sponsor to discuss topics such as the intern's work performance and assigned tasks. Other topics commonly discussed during these sessions are the problems that occur during the internship and the training and education required for specific jobs. Over a third (35.6%) responded that they met on a daily basis with their sponsor. However, 18.3 percent of the interns reported "never" meeting with their sponsor to discuss their progress and/or their internship experience. This may best be explained by the fact that someone other than the sponsor may supervise the intern. For example, a subordinate or coworker of the

EXHIBIT 28

Sponsor Ratings of the Orientation Programs
(N = 63)

	Helpful/ Very Helpful		Somewhat Helpful/ Not Very Helpful	
	N	%	N	%
Understanding goals and objectives of the internship program	16	25.4	47	74.6
Knowing the appropriate kinds of activities and work tasks for interns	11	17.5	52	76.2
Knowing procedures for communicating with the school about the intern	10	15.9	53	84.1
Knowing procedures for solving problems concerning the intern's behavior or work performance	11	17.5	52	76.2
Understanding the intern's responsibilities to the sponsor	13	20.6	50	79.4
Understanding the criteria to be used in evaluating job performance	12	19.0	51	81.0

sponsor may provide the intern with day-to-day supervision.

Parents, overall, appeared to be satisfied with the supervision and guidance provided by both the school and the sponsor. This was particularly the case in their ratings of the supervision provided by sponsors: 91.2 percent gave either "adequate" or "more than adequate" ratings to the supervision provided by the sponsor. However, a sizable minority (38.6%) of the interns' parents rated the supervision and guidance provided by the school to be inadequate. Many parents chose to write in comments suggesting that the schools need to tighten up their monitoring of the attendance of interns and to supervise more closely the types of activities in which the interns are engaged.

SPONSOR SUPPORT

The sponsors of school-based interns appear to receive adequate supervision and assistance from the schools. The results of the sponsor survey show that a school program coordinator or faculty member visited each of the sponsors at least once during the semester; slightly more than a third of the program coordinators were reported to have visited the site sponsor at least once a month. Sponsors also reported that other contact (usually by telephone) between school personnel and themselves occurred fairly regularly. Forty-one percent of the sponsors indicated they spoke with school personnel at least once a month; an additional 23.8 percent reported twice-a-month contact with school personnel. This frequency of contact is probably more than adequate given that many of the sponsors are not first-time participants. In terms of satisfaction with the support received from the school, 100 percent of the sponsors indicated receiving what in their view is adequate support. Only two of the 63 sponsors responding to the survey indicated experiencing a conflict with their intern that required assistance from school personnel. In both instances, the sponsors reported receiving adequate support from the school in resolving the conflict.

COMMUNICATIONS WITH PARENTS

For the most part, parents of the spring/1983 interns appeared to be dissatisfied with the communications they receive from the school regarding the internship program. Just about half of the parents responding to the survey (50.9%) indicated they had not received any information from the school about the internship program. About two-thirds of the parents (64.4%) registered dissatisfaction with the communication between the school and themselves and more than three-quarters (78.9%) indicated they would like more information and feedback about the work performance of their child during the internship. This was a fairly clear-cut finding and suggests that communication with parents may be a weak point in the School-based Internship Programs.

POTENTIAL PROBLEMS ASSOCIATED WITH PARTICIPATING IN THE INTERNSHIP PROGRAMS

The student interns, their parents, the program coordinators, and the guidance counselors were all asked a series of questions regarding potential problems that could arise as a result of participation in the internship programs.

Obtaining and arranging transportation to and from the internship site is one of those potential problems. For the spring/1983 interns themselves, 17.3 percent reported experiencing a problem with transportation (Exhibit 29). Of their group, only 6.7 percent experienced frequent or daily transportation problems. About 35 percent of the parents indicated that transportation often posed a problem for their child. Two-thirds of the coordinators also reported that transportation was a frequent problem for interns.

A second potential problem concerns the extent to which the student experiences conflict in arranging his or her internship around classes. For a small minority of interns (12.5%) and a somewhat larger percentage of the parents (21.1%), the scheduling of the internship appears to pose some problems. About a quarter of the counselors responding to the survey reported that students frequently encounter problems arranging their internship around academic classes.

With regard to finding time to participate in extracurricular activities, more than half (58.7%) of the student interns indicated a problem in that area, at least occasionally. About a third (31.6%) of the parents also mentioned conflicts with extracurricular activities as a problem for their child during the internship period. About 40 percent of both the guidance counselors and the program coordinators reported this as a problem area for some student interns.

One of the other concerns was whether the additional expenses incurred as a result of participation in the internship program posed problems for the students and/or their families. Roughly a fifth of the students (21.1%) and the parents (22.8%) indicated that covering additional expenses for transportation, clothes, lunches, or materials posed a problem. Guidance counselors, on the other hand, were more likely to view this as a problem area, with 54.2 percent of the counselors so indicating.

Finding time to complete class assignments and homework and still participate in the internship is another potential problem or conflict for the interns. A little more than a third (36.6%) of the spring/1983 interns reported this to be a problem for them.

BENEFITS OF PARTICIPATING IN A SCHOOL-BASED INTERNSHIP PROGRAM

One of the important questions posed in this evaluative study of the School-based Internship Programs concerned the benefits derived for participants and sponsors. Survey items addressing this question of benefits were directed to the interns, their parents, and the sponsors. These same respondents were also asked for their opinions regarding the quality and value of the program as a learning experience. Sponsors were asked about the benefits of sponsoring an intern.

Interns and parents were asked for their summary evaluation of the value of the school-based internship. The results are displayed in Exhibit 30. Almost 90 percent of the students and parents rated the internship as an "important" or "very important" learning experience, with more than 50 percent of both respondent groups giving it a "very important" rating.

EXHIBIT 29

Intern Perceptions of Problems Experienced During Their Internship

Problem Area	Not a Problem		Rarely a Problem		Sometimes a Problem		Frequently a Problem	
	N	%	N	%	N	%	N	%
Transportation to and from internship site	62	59.6	19	18.3	11	10.6	7	6.7
Arranging internship hours around classes	70	67.3	16	15.4	11	10.6	2	1.9
Finding time to participate in school activities such as sports, clubs, etc.	24	23.1	14	13.5	37	35.6	24	23.1
Covering expenses for transportation, lunches, clothes, materials	52	50.0	25	24.0	18	17.3	4	3.8
Finding time to complete class assignments	31	29.8	30	28.8	32	30.8	6	5.8

EXHIBIT 30

Intern and Parent Ratings of the Value of the Internship as a Learning Experience

	Value as a Learning Experience							
	Very Important		Important		Somewhat Important		Not Very Important	
	N	%	N	%	N	%	N	%
Interns	58	55.8	31	29.8	9	8.7	1	1.0
Parents	31	54.4	19	33.3	6	10.5	1	1.8

Sponsors were also asked to rate the internship. One-hundred percent of the sponsors rated the program as either an "important" or "very important" learning experience for the intern they sponsored. In addition, parents were asked a separate question concerning the overall quality rating they would assign to the School-based Internship Programs. Over 85 percent (85.9%) of the parents rated it "high" or "very high" quality.

These extremely positive evaluations are further substantiated in the responses of the three groups to two attitudinal survey items (Exhibit 31). Almost two-thirds of the respondents in each group indicated "agreement" or "strong agreement" with the statement that "what is learned in the internship is as valuable as what is learned in the classroom."

The findings for the second of these questions are a little less dramatic; still, they demonstrate the three groups' relatively strong, positive attitudes toward the internship as a learning experience. Interns and parents are somewhat more inclined to believe that all students should participate in an internship.

Opportunity to Develop or Strengthen Work Habits

Interns and their sponsors were asked to evaluate the internship experience in terms of the extent to which they believed it offers the intern an opportunity to develop certain work habits. Exhibit 32 reports the results for the interns. These data suggest that the interns as a group view the program as offering moderate opportunities to develop most of the important work-related attitudes and skills listed in the survey. For five of the items, over three-fourths of the interns indicated the internship offered moderate or extensive opportunities.

To a large extent, the sponsors were even more enthusiastic about the opportunities the internship programs offer young people (Exhibit 33). For many of the skills and attitudes listed, the sponsor ratings exceeded those of the interns, particularly for areas like dependability, flexibility, independence, accuracy, and attitudes to work.

Parents expressed similar positive evaluations of the internship as an opportunity to obtain a realistic view of the demands of holding down a job. For example, over two-thirds of the parents registered "agreement" or "strong agreement" with a statement indicating that the internship experience gives the child a realistic idea of the responsibilities and demands of working.

Development of Personal and Social Skills

One of the outcomes or benefits of participating in the School-based Internship Programs appears to be an increased level of self-awareness and self-confidence and the development of interpersonal skills in relating with others. Exhibits 34 and 35 display the intern and parent ratings of the impact of the internship on these personal and social skills. Over three-fourths of the interns and the parents rated the internship as "helpful" or "very helpful" in developing these skills. The parents were particularly laudatory in their ratings and many took the time to write comments about the important and positive impact they perceived the program had on their child.

EXHIBIT 31

Intern, Parent, Sponsor Responses to Two Attitudinal Questions Regarding the Internship Programs

Question: The things learned in the internship are as valuable as the things learned in high school classes.*

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
Interns	46	44.2	22	21.2	18	17.3	7	6.7	5	4.8
Parents	13	22.8	18	31.6	9	15.8	11	19.3	6	10.5
Sponsors	16	25.4	24	38.1	13	20.6	5	8.0	5	8.0

Question: Most high school students should participate in an internship as a part of their high school studies.

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
Interns	17	16.3	26	25.0	42	[illegible]	9	8.7	5	4.8
Parents	14	24.6	10	17.5	21	36.8	9	15.8	3	5.3
Sponsors	0	0.0	17	27.0	21	33.3	18	28.6	7	11.1

*Some respondent category data do not add up to 100% due to missing responses.

EXHIBIT 32

Intern Ratings of the Internship as an Opportunity to Develop or Strengthen Work Habits and Attitudes

	Extensive Opportunity		Moderate Opportunity		Limited or No Opportunity	
	N	%	N	%	N	%
Dependability	32	30.8	45	43.3	22	21.2
Discretion	34	32.7	28	26.9	36	34.6
Sensitivity	32	30.8	37	35.6	29	27.8
Flexibility	40	38.5	34	32.7	25	24.0
Independence	50	48.1	32	30.8	17	16.3
Accuracy	49	47.1	28	26.9	22	21.2
Attitude	39	37.5	37	35.6	21	20.2
Communication Skills	35	33.7	22	21.2	41	39.4

EXHIBIT 33

Sponsor Ratings of the Internship as an Opportunity to Develop or Strengthen Work Habits and Attitudes

	Extensive Opportunity		Moderate Opportunity		Limited or No Opportunity	
	N	%	N	%	N	%
Dependability	36	57.1	23	36.5	4	6.4
Discretion	20	31.7	19	30.2	24	38.1
Sensitivity	20	31.7	32	50.8	11	17.5
Flexibility	33	52.4	26	41.3	4	6.4
Independence	31	49.2	27	42.9	5	7.9
Accuracy	45	71.4	16	25.4	2	3.2
Attitude	39	61.9	21	33.3	3	4.8
Communication Skills	16	25.4	34	54.0	13	20.7

EXHIBIT 34

Intern Ratings of the Internship's Impact on Personal and Social Skills Development

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
	N	%	N	%	N	%	N	%
Self-awareness	41	39.4	30	28.8	20	19.2	7	6.7
Self-confidence	43	41.3	43	41.3	8	7.7	4	3.8
Decision Making	39	37.5	29	27.9	20	19.2	10	9.6
Interpersonal Skills	53	51.0	27	26.0	14	13.5	4	3.8

EXHIBIT 35

Parent Ratings of the Internship's Impact on the Intern's Personal and Social Skills Development

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
	N	%	N	%	N	%	N	%
Self-awareness	14	25.0	22	39.3	16	28.6	4	7.1
Self-confidence	24	42.9	21	37.5	9	16.1	2	3.6
Interpersonal skills	21	37.5	28	50.0	3	5.4	4	7.1
Maturity	23	41.1	23	41.1	7	12.5	3	5.4

In a related question, the parent survey asked whether the parent associated his or her child's participation in an internship with any increase (or decrease) in the amount of discussion in the home about careers, job-getting and holding skills, or about the intern's career interests and goals. Almost two-thirds (61.4%) of the parents reported increases in such discussions, in particular discussions centered on specific careers, the intern's plans for education and training, and about the intern's career goals and interests.

Opportunities for Career Education Experience

Exhibits 36 and 37 show the intern and sponsor ratings of the importance of the internship experience as a means of learning about careers, jobs, and one's personal interests in and aptitudes for certain occupations. In effect, the interns and their sponsors were asked to rate how important the experience is as a "career education" experience. The results for both groups clearly show the value placed on the internship as an important career educating experience. On almost all dimensions listed, except learning about job application procedures, nearly 75 percent of the interns and sponsors gave the internship an "important" or "very important" rating. In many cases, these ratings approached 80 percent.

BENEFITS OF SPONSORING AN INTERN

The sponsors of the School-based Internship Programs appear to see major benefits for their organizations and for themselves in sponsoring an intern. Over a third (36.5%) said they would sponsor an intern again; nearly two thirds (63.5%) indicated they would recommend the programs to other organizations. Exhibit 38 reports the sponsors' views of the importance of various benefits in sponsoring an intern. Establishing contact with the community schools, the opportunities for providing a community service, and the opportunity to engage in public relations and public information activities appear to be the most frequently cited benefits. The fact that having an intern may also lighten an organization's workload may be another attractive benefit of sponsoring a high-school intern. Many respondents took the time to write comments reflecting the importance and value they place on the programs and the important linkages these programs establish between the schools and the community.

EXHIBIT 36

Intern Rating of the Importance of the Internship as an Opportunity for Career Education

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
Learning About:	N	%	N	%	N	%	N	%
Responsibilities of holding a job	41	39.4	32	30.8	20	19.2	6	5.8
Relationship of school to work world	23	22.1	36	34.6	28	26.9	12	11.5
Characteristics of various jobs	40	38.5	44	42.3	11	10.6	4	3.8
One's personal strengths and aptitudes	42	40.4	38	36.5	15	14.4	4	3.8
Job application procedures	26	25.0	22	21.2	29	27.9	22	21.2
Working with different types of people	53	51.0	25	24.0	17	16.3	4	3.8
Exploring career interests	55	52.9	27	26.0	10	9.6	7	6.7
Education and training required for various careers and jobs	37	35.6	33	31.7	21	20.2	7	6.7

EXHIBIT 37

Sponsor Rating of the Importance of the Internship as an Opportunity for Career Education

	Very Helpful		Helpful		Somewhat Helpful		Not Very Helpful	
Learning About:	N	%	N	%	N	%	N	%
Responsibilities of holding a job	28	44.4	25	39.7	8	12.7	2	3.2
Relationship of school to work world	14	22.2	32	50.8	16	25.4	1	1.6
Characteristics of various jobs								
Personal strengths and attitudes of intern	16	25.4	34	54.0	8	12.7	5	7.9
Working with different types of people	26	41.3	25	39.7	10	15.9	2	3.2
Exploring one's own career interests	16	25.4	31	49.2	15	23.8	1	1.6
Education and training required for various careers and jobs	16	25.4	32	50.8	9	14.3	6	9.5

EXHIBIT 38

Sponsor Ratings of the Importance of Benefits in Sponsoring an Intern

Benefits	Important or Very Important		Somewhat Important		Not Very Important	
	N	%	N	%	N	%
Establishes contact with schools in the community	41	65.1	12	19.0	10	15.9
Helps in recruiting future employees	3	4.8	6	9.5	54	85.7
Lightens workload	30	47.6	16	25.4	17	27.0
Improves community image of the organization	25	39.7	13	20.6	25	39.7
Provides an opportunity for community service	35	55.6	13	20.6	15	23.8
Provides an opportunity for the organization itself to teach students about its value to the public	34	54.0	20	31.7	9	14.3

SUMMARY

This report described the results of an evaluation of theSchool-based Internship Programs operated in several of the high schools in the Montgomery County Public Schools. The evaluation was conducted in the spring of 1983 and consisted of surveys sent to all 22 high schools, to the heads of the guidance departments in those schools, and to the interns, their parents, and sponsors in six target high schools. In addition, a small sample of nonparticipating students in these six high schools completed a brief survey, and 30 parents of nonparticipating students in each target school were sent a survey regarding their attitudes toward and knowledge of the schools' internship programs.

The School-based Internship Programs are managed and coordinated by each school and are governed by the guidelines contained in the Administrative Handbook on Student Internships (MCPS, 1971). Interns typically spend between four and ten hours per week "working" in sponsoring organizations in the community and receive academic credit for completing an internship.

The major findings of this study are summarized below.

PROGRAM DESCRIPTION

- Nineteen high schools responded to the coordinator survey; 15 of the 19 schools reported offering a school-based internship program in their program of studies.
- Many schools lump together external and internal placements such that it is not known how many students actually are placed in organizations outside of the school system itself; it appears that as many as 25 percent of the reported interns are placed internal to the school or school system.
- Schools differ in the number of external interns they report for any given semester. The average among the 15 schools was 20; the range, between 6 and 38.
- The management and coordination of the programs appear to be the responsibility of the career education coordinators in the schools or assigned faculty members, without much involvement of classroom teachers, school administrative staff, or guidance personnel.
- Almost equal numbers of males and females appear to participate; over 85 percent were in the twelfth grade, and about 88 percent of the spring, 1983, participants were college bound.
- Almost two-thirds of the spring, 1983, interns in the target schools reported obtaining placements in scientific or technological organizations.
- The data obtained from this evaluation suggest that the internship programs may be primarily serving high-achieving, motivated, college-bound students, especially for the external placements.

EFFECTIVENESS OF THE PROGRAMS' MANAGEMENT AND COORDINATION

- It appears that all of the schools make an effort, using a variety of communication channels, to inform students and parents of the availability of the School-based Internship Programs.

- Over 75 percent of the students in the six target schools reported knowing about the availability of the school's internship program.

- Grades, demonstrated responsibility, interest, transportation, parental permission, and grade level appear to be the criteria usually used to select interns; in some cases, teacher recommendations and demonstrated talent and achievement in science or mathematics are required.

- There appears to be little effort made to orient participants or sponsors formally to the program, but this does not appear to be a major problem.

- Moderate and probably sufficient supervision and guidance are being provided by school personnel to both participants and sponsors.

- Sponsors report receiving adequate support and assistance from the schools; 100 percent of the sponsors indicated receiving adequate support, and contact between the schools and the sponsors appears to occur regularly.

- Over 97 percent of the student interns and 91 percent of the parents in the target schools reported sufficient supervision and direction had been provided to the interns by the sponsors; a minority of the parents (38%) indicated dissatisfaction with the supervision and guidance provided by the schools.

- Parents appear to be dissatisfied with the amount and frequency of communication they receive from the school regarding the internship program.

BENEFITS TO INTERNS AND THEIR SPONSORS

- Interns, parents, and sponsors all exhibited very positive attitudes toward the School-based Internship Programs as a learning experience. They view the internships as opportunities to strengthen and develop work skills and habits, develop personal and social skills, and learn about careers, jobs, and one's personal interests in and aptitudes for careers.

- Sponsors view the main values of sponsoring an intern to be the opportunities provided for community service and for establishing contact with the schools.

RECOMMENDATIONS

The following recommendations grow out of the findings of this study:

- Despite their overwhelming support and positive evaluations of the School-based Internship Programs, parents registered concern for the supervision and guidance provided to the interns by school personnel. To some extent, their concern is probably part of a larger problem of seemingly poor communications between the school and the home regarding the internship program itself and the performance of the intern at the work site. As with the Executive Internship Program, some effort should be made by the schools to maintain frequent contact with the parents. This could take the form of either a monthly checklist filled out by the sponsor and the program coordinator or even a phone call where the number of participants is small.

- Information drawn from all of the data sources suggest that in some of the high schools, the internship options are limited to either 1) science-related assignments for high-achieving, technology- or research-oriented students through programs coordinated by the science departments or to 2) internal assignments in the school or school complex as office or media center aides, receptionists, or lab assistants. Given the widespread parental and student support for meaningful external internships, the schools and MCPS may wish to increase their efforts to recruit a wider variety of sponsors and to encourage more students to participate in the programs. The current emphasis on school-community collaborative efforts and the recent attention given to the linkages being formed between schools and industry should be capitalized upon to publicize and market the internship programs.

- Interns, parents, and sponsors frequently reported not receiving any orientation to the internship program and the school's expectation for their participation. To some extent, this may be taken care of in that many sponsors are repeaters; that is, they have been sponsoring MCPS interns for, in some cases, over a decade. In other cases, after some initial fumbling and scratching, the sponsors and interns probably work out an equitable and reasonable approach to the internship so that the problem dissipates. Much of this could be alleviated by strongly encouraging the schools to conduct an orientation session in which all parties--students, parents, and sponsors—gather to discuss the parameters of the internship and the responsibilities each has to one another.

- To a large extent, the School-based Internship Programs, while involving only a couple of hundred students a year, yield numerous benefits for sponsors, interns, and schools. Taking the risk of stating the obvious one might ask why not expand these programs so that more students and more sponsors could be involved? The schools may not so much need additional resources to do this, but rather the school may need resource assistance to help them design and plan for such an expansion of the program as well as to help set up a rational and efficient system of managing an expanded program.

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CAREER EDUCATION INFUSION PROCESS

BACKGROUND

The Montgomery County public schools system offers not only career education courses and special programs involving the community in the county's secondary schools (Grades 7-12), but the school system has also developed a process to infuse the K-12 curriculum with performance objectives in career education. The infusion process, as it is called, seeks to teach career education concepts not as a separate subject but as an integral part of the curricula of the academic program. It is one of the major tools developed by MCPS to ensure student attainment of the world of work competencies included in Project Basic and to help meet the requirement of Bylaw BA.04.09 dealing with career planning, resume writing, and interviewing skills. A complete description of the career education infusion process is contained in a document entitled Career Education in Montgomery County (Research For Better Schools, 1982).

At the request of the Department of Career and Vocational Education, with support from the Maryland State Department of Education, an evaluation was conducted of this career education infusion process in its first year of installation in the schools. Because the elementary schools were already participating in a number of evaluation studies, the present evaluation of the Career Education Infusion Process was limited to the secondary level. The purpose of this evaluation was to provide a formative evaluation of the infusion process, focused on monitoring how and to what extent career education is being infused into the curricula in the secondary schools and what influences this process. The evaluation sought to provide program managers with feedback information regarding the strengths and weaknesses of the implementation effort and the effectiveness of support efforts undertaken to formally introduce this process in the system's middle, junior high, and high schools. Where available, models for service delivery were also to be identified.

Four broad evaluative questions served to structure this evaluation. These are discussed in detail in the section on results. The four questions were the following:

- To what extent does sufficient support exist within the school system to bring about the implementation of the Career Education Infusion Process in the schools?
- What in-service training and staff development have been provided to the educators in the school system regarding the process and what has been the effects of that in-service?
- What support and leadership activities are engaged in by central and area office staffs and building principals to encourage the adoption of the process in the schools?
- To what extent is curriculum infusion with career education concepts actually taking place in the classrooms?

The frame of reference used to guide this study was that teacher efforts to include or infuse their curriculum with career education concepts and learning activities is a conscious decision, not unlike teacher decisions to include other relevant concepts into their teaching. While much of what is

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learned in the classroom may ultimately influence career decisions, work behavior, or the work skills of an individual, and thus the entire curriculum could be considered career education, the perspective taken in this study was that "infusion" could be characterized as a conscious choice on the part of the teacher to devote instructional time to covering some aspect of career education. This would include learning activities such as relating career paths, job entry requirements, or career cultures to a subject matter discipline. It would also include using career education topics as vehicles for student exercises in writing or speaking, such as a theme or paper for an English class. It would also include the exploration of work-related values and attitudes. The key ingredient in this frame of reference or perspective is that the teacher has a learning objective in mind which specifically seeks to assist the students in exploring occupations, career interests and choices, attitudes and values related to the world of work, or to relate the discipline to its application in the work world.

This frame of reference was derived from the contemporary literature on career education infusion as well as from discussions with the staff in the MCPS Department of Career and Vocational Education. The whole notion of career education infusion is to teach about careers and work by integrating it with the subject matter disciplines. This does not mean that the curriculum is simply made "relevant." What it does mean is that teachers are aware of the important objectives of career education and that they seek opportunities to include it in the learning activities they plan for their students.

Forty-seven objectives for career education have been identified through a needs assessment process conducted during the 1978-79 and 1979-80 school years. These objectives have been assigned to designated subject areas by grade level and by unit of instruction or course. The MCPS Career Education Scope and Sequence K-12, a resource manual, has been developed which contains the objective statements, keyed to subject matter, grade level, and instructional stage (introduction, development, and emphasis). The manual suggests teaching and learning activities as well as resources and assessment measures. The document was designed to emphasize the career education process and to encourage teachers to infuse their curriculum with career education objectives and learning activities. This was needed at the time because the official program of studies guides did not contain career education objectives. As of the 1982-83 school year, the guides for English/language arts, social studies, and science include career education objectives among the curriculum objectives for those subject areas. These objectives include the Maryland State Department of Education "World of Work Competencies."

The infusion project has been in the developmental stage for the last five years. A sizeable number of teachers and county resource personnel have been involved in the development, field testing, and dissemination of the career education scope and sequence manual. Staff development and in-service training directed at the curriculum infusion process and the use of the scope and sequence manual has been offered to central and area office personnel, media specialists, principals in Areas I and III, and a cohort of elementary and secondary teachers. The resource manual was distributed to each of the schools in the county in the fall of 1982. During the 1982-83 school year, the Department of Career and Vocational Education began a focused effort to implement the infusion process in the elementary and secondary schools.

Classroom teachers have the responsibility for infusing career education objectives into their assigned subject or grade level curricula. The scope and sequence manual provides teachers with suggestions for infusing career education concepts and learning activities into social studies, English/language arts, science, and mathematics. The curriculum guides for social studies, English, and science have been revised to include career education objectives. In addition, the Annotated List of Instructional Materials to Support Career Education has been developed by the MCPS and distributed to the schools.

METHODOLOGY

The choice of qualitative methodology to study the implementation of the Career Education Infusion Process was predicated upon the highly contextual and process nature of the infusion concept. The study sought a description of the status of infusion in the secondary schools as well as a plausible and logical explanation of what factors influence its adoption. The study used interviews with the key actors--the teachers, principals, and support staff in the area and central offices--to try to gain the "insiders" perspective in seeking both the description and the explanation.

DATA COLLECTION

The entire evaluation effort for the study of career education infusion was conducted during the spring of 1983 using semistructured interviews with a sample of classroom teachers, principals, area office staff, and coordinators from the Central Office. The choice of interview as the primary data collection method was based on the need to study the adoption and implementation of the infusion project with as much depth and flexibility as possible. The evaluation focused on process variables and roles played by key people. A second focus was on attitudes and value systems of those key people. Traditional survey methodology, including structured interviews, would not have permitted the kind of depth offered by the interview methods chosen. Separate interview protocols constructed to address each of the evaluation questions were developed for each respondent group. These interview protocols were revised as the study progressed to allow and account for shifts in emphasis and focus. For example, in the early interviews with teachers, the need was discovered to probe more deeply into the subtle differences between teacher attitudes toward career education and their perceptions of the role of the classroom teacher in delivering career education. There were several similar findings in this study that were not anticipated as areas of focus. The semistructured interview format allowed the researchers to pursue leads that would possibly explain the status of infusion.

As stated earlier, the study was delimited to a formative evaluation of the Career Education Infusion Process at the middle, junior, and senior high school levels. Because of several other evaluation projects occurring simultaneously in the elementary schools, it was decided to focus the study on the secondary (7-12) schools only. There is some suggestion that career education infusion may be at a more fully implemented stage in the elementary schools. The results of this evaluation study should, therefore, not be generalized to include the elementary schools.

SAMPLE

The evaluation utilized three primary data sources: area and central office personnel; school principals; and classroom teachers, some of whom were resource teachers at the high school level. Six high schools and three middle and four junior high schools were selected for detailed examination. Exhibit 39 displays the schools included in the sample and the number of personnel at each school interviewed. Target schools were selected using the following criteria to build a framework for sample selection:

1. Size
2. Geographic location
3. Scores on standardized achievement tests (California Achievement Test)
4. Percentage of minority enrollment
5. Past level of involvement with career education based on information provided by the Central Office career education staff

In terms of these five criteria, the 13 schools in the target group represent the diversity present among the county's 22 high schools and middle and junior high schools. Exhibit 40 displays the range of school characteristics present in the sample of 13 schools.

Each of the principals in the 13 target schools was interviewed for this study. In addition, six classroom teachers at each of the targeted schools were selected at random from among the pool of teachers at each school. The pool consisted of all full-time teachers of English, social studies, science, and mathematics. This was a voluntary, non-Board mandated study which meant that selected teachers could decline to participate. In all but three cases, the selected teachers agreed to be investigated. In those three cases, replacements were randomly selected from a pool. A total of 71 teachers were interviewed in this study.[1] Eight central office subject matter coordinators were also interviewed for this study, as well as 18 area office personnel (supervisors and teacher specialists) drawn from the three area offices (Exhibit 41).

DATA ANALYSIS

Qualitative content analysis techniques were used to analyze the interview data. To a large extent, the themes presented in each of the evaluation questions posed for this study served to structure the analysis.

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[1] Several teachers originally selected to participate in the interviews were unavailable during the scheduled school visit due to illness and/or absence from school.

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EXHIBIT 39

NUMBER OF PERSONNEL INTERVIEWED BY POSITION AND SUBJECT AREA

					Teachers						
Schools	Principal /Asst	Career Guidance Counselor	Coor/ Teacher	Career Technician	Language Arts	Mathematics	Science	Social Studies	Other	Total Teachers	Total Persons Interviewed
Middle-Jr/Inter											
Banneker	1	1			0	0	1	1	4	6	14
Farquhar	1	1			1	1	1	1	0	4	10
Gaithersburg	1	1			1	2	2	1	0	6	14
Pyle	1	1			1	1	1	1	1	6	13
Redland	1	1			1	2	1	1	0	5	12
Takoma Park	1	1	1*		2*	2	1	1	0	6	15
West	1	1			2	1	1	0	2	6	14
High Schools											
Bethesda-Chevy Chase	1	1	1		1	2	2	1	0	6	15
Churchill	1	1		1	2	0	1	2	0	5	13
Damascus	1	1	1	1	2	1	1	2	0	6	16
Paint Branch	1	1	1		1	2	2	1	0	6	15
Whitman	1	1	1	1	1	1	1	2	0	4	13
Wootton	1	1	1	1	2	1	1	1	0	5	14
Totals	13	13	6	4	17	16	16	15	7	71	178

*Career Teacher - interviewed split position 1/2 LA, 1/2 CE.

EXHIBIT 40

Characteristics of Schools Selected for Study

Schools	% Minority Enrollment[1]	CAT Total Reading Percentile Rank[2]	CAT Total Mathematics Percentile Rank
Middle-Jr/Inter.			
Banneker	25.9	74	77
Farquhar	11.8	76	78
Gaithersburg	21.7	69	71
Pyle	17.4	91	90
Redland	13.9	79	81
Takoma Park	67.0	54	56
West	26.6	68	73
High Schools			
Bethesda-Chevy Chase	30.6	80	78
Churchill	14.1	83	84
Damascus	7.1	63	68
Paint Branch	20.6	73	74
Whitman	14.5	84	84
Wootton	12.6	83	83

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[1] Minority enrollment data obtained from Statistical Profiles 1982-83 prepared by Department of Educational Accountability. Average minority enrollment for MCPS for this period was 23.8 percent.

[2] California Achievement Test (CAT) Results taken from MCPS Annual Test Report 1981-82 prepared by Department of Educational Accountability. Fall, 1982 percentile ranks for Grade 8: Reading, 78; Math, 79. For Grade 11: Reading, 73; Math, 73.

EXHIBIT 41

Number of Persons Interviewed by Position

Central Office Staff (ESC)		8
Area Office Staff		18
Supervisors	12	
Teacher Specialists	6	
Principals		13
Guidance Counselors		13
Career Coordinators		13
Guidance Counselors		13
Career Coordinators		5
Career Information Assistants		4
Teachers		71

Analysis of the data obtained from the interviews occurred both concurrently with and subsequent to the data collection. There were two well-founded reasons for this concurrent analysis of the data. One had to do with the need to view the interviews as a dynamic process with a continual refinement of questions and focus as the study progressed. What was observed or inferred from initial interviews was subjected to confirmation in subsequent interviews. A second reason grew out of the need to relate and integrate data obtained from interviews with each of the respondent groups.

One of the more important questions posed by this study focused on the extent to which classroom teachers were actually infusing their curriculum with career education concepts. This was viewed as a classical implementation question needing clarification as to in which stages in the adoption process most teachers find themselves. Gene Hall (1975) has developed a framework for characterizing the levels of use of an innovation as a means of monitoring the implementation of an education innovation. Based on responses to a string of interview questions, respondents are placed on one of seven levels of use or adoption.

FINDINGS

LEVEL OF SUPPORT FOR CAREER EDUCATION INFUSION

The first issue examined in this evaluation was whether and to what extent sufficient support exists within the school system to bring about the full scale implementation of the infusion project in the secondary schools (7-12). The implementation of the infusion process depends to a large degree on the attitudes of educators in the school system, on their awareness level of the need for career education infusion, and on their willingness to accept responsibility for its implementation. This evaluation sought to assess the level of receptivity to the infusion process among the educators in the school system and to determine whether it is being installed in an environment conducive to its successful adoption.

Presented in the following is a summary of the important findings regarding the level of support for career education and the infusion process among those interviewed. A full discussion of these findings is presented in the subsequent section of this report.

- Central and area office personnel, principals, and teachers evidence strong positive attitudes toward career education and the need for career education in the schools.

- Most of those interviewed believe career education should be provided to all students regardless of whether they plan to go to work or to college after completing high school.

- The concept of integrating career education into the curricula instead of offering it as a separate subject receives widespread support among central and area office personnel.

- Classroom teachers are somewhat resistant to infusing the subject matter curriculum with career education, believing instead that career teachers and other specialists are responsible for teaching career education.

- Most of the educators interviewed perceive a low level of commitment for career education and the infusion process among the school system's top administrators.
- Subject area coordinators and staff in the central and area offices and the building principals are uncertain of the level of effort and involvement expected of them with regard to implementing the infusion process.
- While supportive of the concept of infusing the curriculum with career education, most of those interviewed expressed uncertainty as to "how" to actually do it.
- Principals and teachers view the infusion process as another add-on program to an already overburdened secondary school curriculum.
- Classroom teachers voiced considerable frustration with the pressures they experience to "cover the curriculum" of their subject matter and at the same time include topics like career education, human relations, and other priorities identified by MCPS.

Discussion

Central and Area Office Staff

> "Career education is a sign of the times . . . a reflection of the current world economic situation."
>
> "The role of the school system is to present career alternatives and options, to train students to be effective citizens."
>
> "Students must be prepared for a changing career world . . . (we) must train students to fit into this changing world."
>
> "We need to 'expose students to more nontraditional careers and to counter sexual and racial stereotyping when teaching career education'."
>
> "I believe career education spurs students' minds and encourages them to take more risks in exploring different courses."

These quotes, taken from interviews with central and area office staff members in MCPS, typify their strong commitment to and support for career education in the schools and diversity of views about what it is. Most of the staff members interviewed evidenced a relatively high level of understanding of both the need for career education and the importance of providing opportunities for young people to explore the work world. For the most part, those interviewed view the target audience for career education as all students in MCPS, from kindergarten through senior high school. Many of the educators interviewed suggest different goals for career education depending on the age of the student. For the elementary student, the focus should be on exposure to the concept of work, with ample opportunity to explore broad occupational fields and careers. For the older, secondary student, the focus should shift to more in-depth exploration of specific careers and occupations in which they have an interest.

The concept of integrating career education with the subject matter curricula of the elementary and secondary schools is widely accepted among the central and area office staff members interviewed. Most believe it is the logical way to deliver career education to all students, instead of offering separate elective courses for only a few. While the concept is supported, many of the staff members interviewed cited the following three issues that act as serious disincentives to extensive implementation of the infusion process in the schools:

1. The general lack of receptivity of classroom teachers to change and innovation, particularly when this involves a departure from the subject matter they teach and/or from the teaching techniques they usually employ.

2. The current emphasis on covering "the curriculum" and what teachers perceive as an incursion on available instructional time by topics, issues, and activities outside of that curriculum.

3. The lack of a perceived emphasis for the infusion process among classroom teachers or at least the perceived competition for emphasis among several MCPS priorities (human relations, basic skills, and several new curricula).

The impression obtained from these interviews was that the notions of importance of career education as a school responsibility stem not so much from any specific MCPS staff development effort, although these have had an obvious impact on the educators in the system, but more from the widespread attention given career education as an issue for the nation's public schools. Many of the central and area office staff cited recent reports and national studies of the condition of the nation's public schools as proof of the need to make the school curriculum more relevant to work and career choices. Others cited their own personal experience in selecting a career, the current state of the economy, or the impact of technology as reasons for exposing students to career education.

The fact that widespread support for career education exists among this group suggests that the natural environment in MCPS is receptive and potentially supportive of the career education infusion process. This may be an important point in that the full implementation of the process is heavily dependent on the attitudes and perceptions of those who will implement it. Other ideas for change and innovation have not had the kind of receptive environment that appears to be the case for career education.

A related observation concerns the perceptions of those interviewed regarding the school system's level of commitment to career education and what expectations are communicated to the central and area office subject matter coordinators, supervisors, and teacher specialists. For the most part, the interviews suggest that the school system's level of commitment toward career education is perceived as relatively low. On a formal basis, career education has been identified as one of the Goals of Education for MCPS. On a less formal basis, in terms of resources committed in support of career education and in the amount of attention given the subject in board meetings and in communications with the staff, career education receives much less emphasis than other issues, such as basic skills, human relations, or special education. Our impressions from these interviews are that, on a real basis, career education is not perceived as an area of curricular emphasis with the system's top administration or as an area for which the central and area office subject matter coordinators, supervisors, and teacher specialists are expected to devote considerable effort or time.

The impressions obtained from the interviews with the staff members suggest that, with few exceptions, they do not intend to assume an active leadership role in helping to implement the infusion process. The central office subject matter specialists view their role as ancillary and supportive of the central office career education staff efforts to implement the infusion process. To a large extent, their comments in the interviews indicate general support for the concept but resistance to any extensive leadership role beyond including career education objectives in subject matter curriculum guides and including career education staff members in workshops and curriculum development activities.

The area office staff interviewed, for the most part, view their role in the implementation of the infusion process as monitoring the dissemination and distribution of the Career Education Scope and Sequence Guide and related curriculum support materials and, perhaps, as organizing an areawide workshop or staff development activity covering the infusion concept. These area office staff members also evidenced some resistance to any extensive leadership or involvement in the implementation phase. Most cited their own heavy involvement in other projects and the perceived lack of emphasis and direction given the process in their area office as major disincentives for much involvement on their part. Many also indicated that they feel ill prepared to assume a more active leadership role because of their lack of knowledge of and experience with career education.

What was clear from these interviews with both the central and area office staffs was that they expected the leadership to come primarily from the Central Office career education staff. To some extent, these area office staff members view the principal as another key actor in leading the implementation effort. While both of these notions may be true, the full-scale adoption of the Career Education Infusion Process will require some involvement and leadership of these central and area staffs if it is to get off the ground in the secondary schools in MCPS.

Principals

The 13 principals interviewed for this evaluation evidenced many of the same attitudes and perceptions about career education as the central and area office staffs in MCPS. While there was broad support for inclusion of career education programs and services in the schools, the principals' attitudes were somewhat tempered by their perceptions of both parental support for career education and teacher receptivity to change and innovation and by the perceived low level of commitment in MCPS for career education.

Many of the principals, particularly the high school principals, perceive the community and parental support for career education to be limited. The principals cited parental expectations and attitudes toward career education may be influencing the principals (and teachers) and their level of support for the implementation of the infusion process. One of the high school principals candidly suggested: "The biggest concern of parents in (this) school was getting their kid in Harvard or Yale. When they come into school, they want to talk about advanced placement for English and their kid's SAT scores . . . . This gets communicated up and down the line, so that the career education classes go begging for students. The career center gets used mainly by students checking out the colleges . . . . The infusion (process) is a good idea, but it won't be a high priority with the teachers here."

The middle and junior high school principals appeared to be less influenced by community and parental expectations for academics and test scores. Most of these seven principals reported general parental support for career education and the career education programs offered in the school. Schoolwide career days, school assemblies focused on career exploration, and job shadowing experiences were reported as receiving widespread support and involvement among the parents. The principals in the middle and junior high schools appeared to be more open to and supportive of the infusion process than their counterparts in the high schools. Perhaps some of this difference in attitudes could be attributed to the influence of parental interest in career education. It should be pointed out here that career education objectives are more frequently infused into the programs of study for Grades 7 through 9. The increased interest in career education could be a reflection of this fact.

Many of the principals expressed concern for what they view as the burden placed on the schools of implementing the infusion project. Almost all of the principals reported considerable teacher resistance to curriculum projects like career education because, in their view, they focus attention and energy away from the academic curricula for which the teachers feel accountable. The comments reported below are typical of the concerns expressed by the principals:

> "Career infusion is another add-on program that just puts unnecessary pressure on teachers who are already overworked."
>
> "Teachers resent having the feeling they are fighting for classroom time to teach content."
>
> "Teachers resent having another thing to do. They don't have the time or expertise (to teach career education concepts)."
>
> "Focusing on career education leads to doing less in another area."
>
> "There are too many other priorities!"

Perhaps the most obvious factor influencing the principals' attitudes toward the career education infusion process is the perceived low level of emphasis given to career education in MCPS. The clear impression drawn from the 13 interviews was that career education (and the infusion process) is viewed by the principals as one of the formal goals of education for MCPS, but not as an area for which the schools are expected to devote considerable attention and resources. Many of the principals suggested that the actions taken by the area and Central Office administration in support of career education have been diffuse and void of the intensity and focus that usually accompanies a high priority item for the senior administrators in the school system. As one of the high school principals put it: "We've had a number of new programs - priorities - in the last few years. If it's a big issue for the superintendent's office, we know it. . . . There will be a lot of meetings about it, staff members will be around pushing it. Career education hasn't had that kind of fanfare. It's hard to say that something like career education isn't important. . . but as I see it, it hasn't gotten much push in the (system) up until now."

In the course of the interviews, many of the principals expressed ambivalence toward their leadership role in implementing the career education infusion process in their schools. Most of the principals cited their responsibility and obligation to provide leadership for all programs taking place in the school. Yet, many voiced frustration at the number of new programs, projects, and innovations being implemented in MCPS at a time when school management, community relations, and labor relations occupy so much of their time. For the high school principals in particular, school management responsibilities appear to require so much administrative time that little time is left for curriculum and instructional supervision. Cousequently, the resource teachers, or department chairs, appear to be heavily involved in managing innovation and curricular change in the high schools. At the middle and junior high school levels, the principals described more involvement with curriculum and new programs and expressed fewer concerns about being "pressed for time" in fulfilling their administrative duties.

The principal is in a critical position to support the implementation of the infusion process. The impressions obtained in the interviews with the 13 principals are that, for all of the reasons cited above, the principals have not accepted an active leadership role in implementing the career education infusion process in their schools. Moreover, none of the principals anticipated taking a more active role in the future unless, as one principal put it, "there's a big push from above."

Teachers

For the most part, the 71 teachers interviewed for this study expressed positive attitudes and strong support for the broad concept of career education and the need for career education programs and services in the schools. This was a consistent finding across all 13 schools and among all of the teachers in each of the four subject matter areas of English, social studies, science, and mathematics. The analysis of the teacher interviews suggests the following observations:

- Most of the teachers expressed support for the utilization of resources and staff to operate the career education programs in the schools (i.e., career centers, internships, career awareness courses); many of the teachers suggested that the resources should be increased.

- Almost all of the teachers expressed concern that these career education programs were reaching only a small portion of the students--this was particularly the case of the high school teachers; almost all of the teachers expressed beliefs that career education is an important developmental experience that should be available for all students, including the college-bound and those students planning to go to work after high school.

- With only a few exceptions, the teachers view career education in the schools as focused on personal exploration of interests, aptitudes, and career aspirations, rather than on acquiring specific job skills; most of the teachers draw a clear distinction between career education and programs such as work-study or distributive education.

- Many of the teachers expressed beliefs about career education as a legitimate means of socializing students to accept the value of work and to "develop a respect for all levels of work and employment."

Yet, despite these generally favorable and supportive attitudes toward career education, the classroom teachers interviewed appeared to be resistant to the concept of infusing the subject matter curricula with career education concepts. Most would rather see expanded special programs (i.e., career centers, career awareness courses) or increased emphasis on career counseling provided by the guidance staff. This was a common finding among the 71 teachers interviewed and may partially explain why so few of the teachers reported making efforts to infuse their teaching with career education concepts and learning activities.

To some extent, this resistance may be influenced by their uncertainty of what the infusion process is all about and what is required of them. This poses somewhat of a "Catch 22" situation for MCPS, in that the teachers' lack of knowledge about the process contributes to their resistance to it. Almost two-thirds of the teachers rather candidly admitted having little or no knowledge of the infusion process other than an awareness of the concept and the fact that the infusion curriculum guide exists. Even fewer of the teachers evidenced knowledge of strategies for infusing the subject matter they teach. Many of these teachers expressed concern for what they view as the intrusion of the infusion process on their teaching time and for the planning and preparation that might be required. This suggests a lack of understanding of how infusion takes place and how it can complement the subject matter curriculum. It also suggests that teachers are not sufficiently aware of the infusion curriculum guide as a planning tool, nor the career education objectives in their programs of study.

Among those teachers who did evidence some knowledge of the process, including the uses of the infusion guide, their attitudes and perceptions were much more positive. One could almost make a generalization that there is a direct and positive relationship between knowledge of the infusion process, particularly "how" to infuse, and their level of openness to "trying out" infusion in their teaching. The teachers who had received some form of training, either through in-service or through collaborative work with knowledgeable colleagues on the faculty, expressed far fewer concerns about the loss of teaching time or the amount of preparation that might be required. This was the case, even if they were only minimally involved with actually infusing their teaching.

Many of the teachers also voiced considerable frustration with what they view as competition for time between teaching the content objectives of their subject matter and the inclusion of "special" topics such as career education. The following comments taken from the interviews capture the frustration and occasional anger expressed by many of the teachers during the interviews:

> "We are so pressured to accomplish present objectives, to add on (career education infusion) without deleting anything would be self-defeating."
>
> "The curriculum is so loaded; we are pressured to achieve so much content that it's difficult to have the luxury of doing anything on careers."
>
> "I do not intend to teach career ed--unless we are mandated by the county. Then they would have to eliminate something. We have too much to cover and not enough time."
>
> "I do all the infusion I feel is required—more would be an intrusion."

A third attitudinal variable that may be influencing teacher willingness to include career education concepts in their teaching is their perceptions of the commitment of MCPS to career education. The majority of the classroom teachers interviewed perceive MCPS interest in career education as a low-priority commitment. This was a consistent finding, even among teachers who were attempting to infuse their curriculum. The primary reason given for this perception was the lack of consistent publicity and attention surrounding career education (including the infusion process) and the fact that other areas, such as test scores and human relations, receive far more focus in MCPS. The following quotations taken from the teacher interviews are typical of the teachers' perceptions:

> "One of the goals of the county has been to eradicate sex stereotyping and racial discrimination. The system has done things to achieve this. Career ed has not been addressed in the same mode. It doesn't appear as important."
>
> "Theoretically, the system has a serious interest. However, they have not delineated the expectations they have of teachers—or made specific demands."
>
> "I think the county makes a verbal commitment (to career ed infusion) but there needs to be made a county objective to demonstrate the real commitment."
>
> "The funding is there, the interest is there—but the message doesn't get out."
>
> "I'm not aware of any 'push' from Montgomery County. Right now, the

> area is human relations. It is a priority which keeps changing. Maybe at some later time career ed will be a priority."
>
> "No one has asked me or told me I have to do career ed."
>
> "The county has not made a pitch to get teachers thinking about it (infusion)."
>
> "Since it is not a priority and I don't believe in it--I have no interest or intention of doing any infusion."
>
> "Infusion is just one of the many directives from 'above'; just like drugs, sex, civil rights . . . no time for everything."

In general, most of the teachers distinguish between career education and vocational-technical job training programs. However, a small minority of teachers expressed concern that career education forces students into making early career choices or that it "tracks" students in paths toward specific occupational areas. This misunderstanding of the goals of career education seemed to be more evident among junior high and middle school teachers. Many of these teachers expressed doubts as to the appropriateness of career education infusion for junior high and middle school students despite MCPS' emphasis on career exploration at this level. The following quotes from the teacher interviews illustrate this point:

> "I cannot see the point of having to integrate career education into ninth grade--they have never had a job experience; therefore, they haven't the faintest idea of what they want."
>
> "Middle school is not the place to stress career ed. Perhaps a very cursory introduction could be tolerated. Career ed seems so final—almost like making a decision now and holding on to it through thick and thin--only to find out too late you have made a wrong decision. Kids may get a mind set which I think is dangerous. It is important for them to explore."
>
> "I am working with adolescents who may change their minds a lot about future careers. They need solid foundation of instruction rather than being limited by a concentration on careers."
>
> "I have no intention of talking about careers—these students are too young. They are still having a good time or their plans are unrealistic. They dream about being ballplayers--change their goals frequently. [Career education infusion] is not a particularly useful approach. I think career day is enough."
>
> "Career ed is not practical for this age (jr. high). Students don't relate—there is no immediate concern."

This perception was almost entirely located at the junior high and middle school levels. It does, however, suggest some misunderstanding and an attitudinal barrier to the implementation of the infusion process among a minority of teachers at this grade level.

IN-SERVICE, STAFF DEVELOPMENT, AND SUPPORT RESOURCES

A second evaluation question posed by this study was concerned with whether sufficient in-service, staff development, and other support resources have been provided to the educators in the school system to affect their understanding of the infusion process and to clarify the role they are to play in supporting its implementation.

Summary of Findings

The following points summarize the findings related to the effects of the in-service and support resources provided to central and area office staff, building principals, and the classroom teachers:

- The in-service and staff development training provided to the central and area office staffs have been limited to several brief presentations concerning the need for career education, the concept of infusion, and the development and use of curricular support materials, such as the *Career Education Scope and Sequence Guide, K-12*.
- The effects of this in-service training are that participants have acquired positive and supportive attitudes toward career education and the infusion process, but they have not acquired the experience and skills necessary to allow them to contribute to the implementation of the project in the schools.
- Building principals have received limited in-service training on the topic of career education and the infusion process; the effects of this in-service training have been mainly to heighten their awareness level and to briefly acquaint them with the career education curriculum materials.
- While area office supervisors and elementary teacher specialists are available to principals as resources to assist in the implementation of the infusion process, building principals have not asked for nor used these resource personnel.
- The classroom teachers interviewed for the study have received little or no in-service training related to the career education infusion process.

Discussion

Central and Area Office Staff

The findings from the interviews with this sample of central and area office staff suggest that, from the perspective of those interviewed, a planned and consequential staff development program on infusion for central and area office staff does not exist. What staff development that has occurred has been diffuse, not in sufficient depth to fully inform the staff of their role in implementing the process, and has, in general, not resulted in the initiation of any new activities on the part of those interviewed to support the infusion process. For the most part, the in-service training that has occurred has been in the form of brief presentations covering the need for career education and curriculum infusion and the development and projected use of the infusion curriculum guide.

Five of the eight central office subject area coordinators interviewed indicated that they had participated in in-service programs related to career education. These activities were described as workshops sponsored by MCPS or other organizations, conferences, programs at national conventions, and seminars. Only three of those interviewed said that the in-service training specifically covered the topic of career education infusion. One of the interviewees had participated in a summer in-service curriculum development project which included the infusion of career education objectives into a new social studies curriculum guide.

Two coordinators specifically said that they had seen the career education infusion slide/tape produced by the MCPS career education staff. One of these two described the slide/tape in-service training as effective because the group broke up into smaller discussion groups and exchanged information. Three of the coordinators interviewed could not identify any in-service activities in the area of career education or infusion in which they had participated.

All but one of the central office subject matter coordinators interviewed had received a briefing on the development and dissemination of the MCPS Scope and Sequence Guide for career education infusion. One coordinator did not know of the existence of the guide. Those interviewed seemed to distinguish this briefing or update on the guide from the notion of any formal in-service training. However, the seven coordinators appeared to be knowledgeable about the guide, its contents and potential uses. This knowledge appears to have been acquired mostly from informal contacts with the Central Office career education staff and from using the guide in the revision and development of subject matter curriculum guides.

It appears that the one-to-one working relationship between the career education staff and the Central Office subject area coordinators has resulted in the regular exchange of information about and assistance with the scope and sequence guide. These relationships and informal exchanges may be more responsible for the awareness level of the Central Office staff than the limited formal in-service training provided. Six of the interviewees mentioned, for example, that the career education staff had been involved as resource people at workshops and/or meetings with teachers and in summer curriculum development workshops.

Parenthetically, it is interesting to note that, when queried, only one of the Central Office subject matter coordinators indicated a need for any further in-service training related to the infusion process. This fact serves to underscore the point made earlier regarding their perceptions of the leadership role they are expected to play and the level of effort they expect to put out in supporting the infusion process. From the interviews with this sample of coordinators at the Central Office, our impressions clearly suggest that as a group the coordinators do not, at this time, intend to play an active role in the implementation of the infusion process. While they support the concept of career education and to some extent the infusion concept, this support appears not to go beyond including career education objectives into the curriculum guides and involving the career education staff in teacher meetings and workshops. If the opposite were the case, that is, if they expected to play a more active and leading role, most would recognize their own need for further in-service training on the topic of infusion.

The area office staff, on the other hand, reported more involvement in staff development and in-service related to the Career Education Infusion Process. Seventeen of the 18 persons interviewed at three area offices reported receiving specific in-service training focused on the infusion process. This in-service was delivered by the Central Office career education staff on two different occasions. One of the earlier sessions, conducted in the 1981-82 school year, involved the use of a slide/tape presentation on the infusion project. In addition to the general information on the Career Education Infusion Process, the slide/tape presentation also illustrated a few examples of teachers demonstrating career education activities through infusion. Those interviewed suggested that the in-service training significantly raised their level of awareness of the concept of the infusion process, but did not focus enough attention on "how" to help teachers infuse their teaching with career education concepts.

A second, more recent, in-service activity mentioned by the area office supervisors and teacher specialists focused on introducing the Scope and Sequence Guide for Career Education K-12. The document was introduced, including its format and content. In addition, the responsibility of the area office staff for disseminating the guide was discussed, including their responsibility to work through the principals and resource teachers to encourage the implementation of the process in the schools. The supervisors and teacher specialists were careful to point out that no specific directions were given on methods or strategies to assist in the implementation process. As one supervisor pointed out, "We were to 'encourage' teachers to use it (the guide)."

In the administrative structure of the MCPS, area office elementary and secondary supervisors and elementary teacher specialists are charged with the primary responsibility for managing and monitoring the implementation of the infusion process. As most of those interviewed would point out, if they are to carry out this task they will need further training in developing strategies and practical ways to help teachers infuse the subject matter curricula with career objectives. As one coordinator put it, "we need more 'how to' techniques."

Principals

To a large extent, the 13 principals indicated that they have not received extensive or substantial support from the central and area office staffs with regard to the implementation of the Career Education Infusion Process in their schools. The support that has been provided has been in the form of areawide principals' meetings, where the topics of career education and infusion have been briefly discussed, and memoranda accompanying the distribution of the infusion curriculum guide and related instructional materials. One of the area offices did conduct a half-day staff development program on infusion for the principals and followed up with an after-school workshop for interested teachers. The interviews found almost no evidence of principals receiving substantial resource assistance from the area office staff, such as help with planning, staff visits to the school, or any other ongoing support activity. One principal claimed to have received "a lot of paper, but no support to back it up." It should be pointed out here that all of the principals acknowledged the availability of the Central Office career education and area office staffs as potential resources with the infusion project. None of the principals indicated that they had requested such assistance and none mentioned any plans to do so in the future.

The high schools have received career information assistants and career education teacher staff positions to support the career education programs in the school. For the most part, these staff members have been used to manage the career centers and other special programs in the high schools. With one exception, the career education teachers and assistants have not been involved with the implementation of the infusion process in their schools.

Instructional materials in support of the infusion process are plentiful. Several copies of the infusion curriculum guide were available in each of the 13 schools, as well as additional instructional materials housed in the media centers or in the high schools' career centers. Many of the principals reported receiving substantial amounts of career education instructional material over the last several years. To some extent, these materials have been disseminated from the Central Office. Most of the materials, however, have been purchased with funds provided by the Central Office and distributed by the area offices. In one case, a high school principal reported purchasing career education instructional materials using school funds available for that purpose.

To date, all of the interviewed principals have received some type of exposure to career education, either in the form of university course work, self-directed activities, or area and MCPS-wide in-service training. The in-service training provided by MCPS was conducted by staff members from the Central Office's Department of Career and Vocational Education. This training was characterized by one interviewee as a "one-shot deal." For most of the principals, the MCPS-sponsored in-service training consisted of a brief presentation on career education and the infusion process given as one of several topics at an areawide principals' meeting. In one area office, principals and two teacher representatives participated in a half-day in-service meeting devoted to career education infusion. The principals who had participated in this workshop gave it positive ratings in terms of 1) helping to raise their awareness of the need to infuse the curricula with career education concepts and 2) helping them to become familiar with the new scope and sequence guide for career education. However, no follow-up meetings or further assistance were provided by the area office. One of the high school principals did mention that an area office staff member had been working with the social studies teachers in his school. From information given by the other interviewees, it appears that no on-going in-service training has been offered to secondary principals on the topic of infusion. One of the conclusions to be drawn from this study is that it is extremely difficult for principals to assume a leadership role in encouraging the implementation of the infusion process unless they have received training and assistance. Area office staff, who routinely advise school-level personnel on content area curricular and instructional matters, need to offer more support to the schools to assist them in their implementation efforts. In addition to offering direct assistance to teachers, the area office staffs need to provide principals with information about the process and perhaps assist them with planning for and managing the implementation of the process in their schools. To date, much of what has been provided to the principals has been inadequate. With the exception of actual instructional materials, which are plentiful, staff assistance from the area office and in-service training appear to fall short of the need. While many of the principals interviewed did not articulate an immediate or pressing need for more training or assistance, they did qualify their statements by commenting that they would require much more training and expert emphasis to make it a noticeable priority item among other instructional programs.

Teachers

A wide variety of career education materials have been made available to all of the schools in MCPS through in-school sources such as career centers, media centers, and guidance departments. In addition, materials are readily available from each of the area offices and the Carver Educational Services Center. In spite of the availability of such materials, this study found that few of the teachers interviewed accessed or used these to any great extent. At a more basic level, the majority of teachers participating in the study evidenced little awareness of the availability of the materials. The overall impression gained by the research team was that at the school level, no concerted effort has been made to inform teachers of the availability and potential uses of the materials. Communication regarding materials was reportedly limited to bulletins, a bibliography, and occasional written interdepartmental memoranda.

An exception was found among secondary level teachers interviewed in two of the 13 schools who reported that they had received substantial information about the career education materials from their schools' career education teacher and career information assistant. In these cases, the materials were exhibited and explained to the teachers at departmental and faculty meetings. The career information assistants also made an effort to work with individual teachers to get the materials into the classrooms.

One of the important evaluative questions of this study concerned the extent to which classroom teachers had received in-service training regarding career education infusion and the relationship between that training and their level of effort at infusing the curriculum. The majority of the 71 secondary teachers reported receiving no formal in-service training regarding career education, the infusion process, the use of the infusion curriculum guide, or in the use of available career education instructional materials. (During the period 1978-1982, 66 secondary teachers in MCPS had participated in a career education staff development course.) Those who had indicated receiving some information about the infusion process reported that this had been delivered in brief presentations at faculty or department meetings or in discussions with the career coordinators and career technicians in the school. Only six of the 71 teachers reported participating in an in-service program focused on the infusion process. Two of those teachers had actually worked on a social studies curriculum development project sponsored by the Central Office in which the infusion of the curriculum with career education objectives was one of the tasks. One of the teachers had participated in several area and central office meetings where the infusion process was one of the topics. Three were department chairs (resource teachers) who had received in-service training on career education at the area office meetings. Given the fact that "formal" implementation of the career education process had only begun in the fall of 1982, one should not expect that a large number of classroom teachers would have participated in in-service programs after only seven months into the implementation.

One of the interesting findings taken from the interviews was the number of teachers who had been exposed to career education outside of MCPS. Seven of the teachers reported taking university coursework in career education—generally as part of the requirements for a master's degree in guidance. Five teachers mentioned coming to MCPS from other school systems where they had received career education in-service training. Others mentioned attending regional, state, or national conferences where career education was one of the topics. Almost a fourth of the teachers interviewed reported some type of exposure to career education outside of the in-service and staff development sponsored by MCPS.

The bottom line, however, is that secondary level classroom teachers in MCPS have not received any significant in-service training on the infusion process. The in-service training that has been provided through the MCPS staff development office and the Central Office career education staff has not reached a sufficient number of secondary teachers as of May, 1983, to stimulate the widespread adoption of the infusion project. For the most part, the area offices have not offered the teachers any in-service training, either in the form of areawide in-service programs or in the form of faculty in-service training at particular schools. None of the secondary schools have offered teachers in-service, nor has there been much of an effort to provide teachers with individual assistance or curriculum supervision regarding the infusion process. What is perhaps more important is that, with one exception, none of the area office staff or the principals interviewed for this study suggested the need for more in-service opportunities for secondary teachers to stimulate the implementation of the infusion process. As one area office supervisor put it, "if they're at all serious, there will have to be a lot more effort to train the teachers to get the thing moving in the schools."

EFFORTS TO SUPPORT THE CAREER EDUCATION INFUSION PROJECT

A third evaluation question had to do with the kinds and frequency of support activities engaged in by those responsible for leading the implementation effort. Area office resource personnel, with technical assistance from the career and vocational education resource staff at the Central Office, are asked to provide in-service training, resources, and leadership to the schools as a means of fostering adoption of the implementation of the infusion process. School principals are responsible for leading the adoption in the schools, allocating resources, arranging for staff in-service training, and providing curriculum supervision to the classroom teachers. This evaluation sought to monitor how those supports were being provided: What types of support activities were engaged in by central and area office personnel and by school principals and with what frequency? What resources were mobilized by these support personnel and how were these resources used to facilitate the implementation of the Career Education Infusion Process in the 13 target schools of this study?

Summary of Findings

The important findings relative to these questions are briefly summarized here:

- Central Office subject matter coordinators appear to be moderately involved in activities supporting the career education project; their level of involvement is probably not sufficient to sustain the project.

- Area office staff, who have the major responsibility for facilitating and monitoring the implementation of the process in the schools in their areas, are not providing the kind of ongoing leadership and assistance to the schools that is probably required to stimulate its adoption by classroom teachers.

- Both central and area office staff appear to be resistant to any extensive involvement with the implementation process; much of this resistance is due primarily to a lack of perceived emphasis on its implementation, their extensive involvement in other curriculum projects, and their lack of awareness of "how" to assist teachers infuse the curriculum.

- Other than including infusion as a brief topic in faculty meetings, building principals have not initiated any activities in support of the infusion process.

- Principals, for the most part, appear to have a limited, even cursory, awareness of the general nature of the career education instructional materials available in their schools, including the scope and sequence document for infusion and the elements of the Programs of Study that address career education objectives.

Discussion

Because of the different roles to be played by the central and area office subject matter coordinators and resource teachers in fostering the implementation of the infusion process, this section has been divided to allow for a separate discussion of their support efforts.

Central Office Staff

One issue discussed in the interviews concerned the Central Office subject matter coordinators' level of effort to include career education and the needs of the infusion process in the formal curriculum development and implementation activities in MCPS. This would include such activities as the development of curriculum guides and courses of study, the textbook selection process, and curriculum coordination activities such as workshops and in-service training.

The analysis of the data obtained from the interviews suggests that the Central Office subject matter coordinators are only moderately involved in supporting the implementation of the infusion process. Much of this involvement has come in the form of opening up the subject matter curriculum development process to allow for the inclusion of career education objectives in the curriculum guides. During the past three years, five of the eight subject matter coordinators have included career education staff members in summer workshops designed for development of new curriculum guides. In three cases, this has resulted in the inclusion of career education objectives in the guides, one of which was distributed to the schools during the 1982-83 school year. These same three interviewees also indicated that the career education infusion scope and sequence guide has been used extensively when writing objectives or developing curriculum guides. The remaining five have made very little or no use of the guide.

Four of the coordinators indicated that career education and the needs of the infusion process are considered when selecting text books and supporting instructional materials. One of these four even suggested that a text would not be considered unless it specifically included career education topics. For the remaining four interviewees, inclusion of career education topics in texts is not currently a criterion for textbook selection.

Four of the interviewees reported covering career education infusion in their discussions at meetings with resource teachers and classroom teachers during the 1982-83 school year. In some cases, Central Office career education staff members have been invited to speak to workshop groups and meetings of subject matter teachers. Six of the eight coordinators have referenced career education and/or the infusion process in their written communications and publications distributed to the schools, usually on a one-time-only basis.

While these activities do represent efforts to support the process, this level of activity is interpreted to be minimal and probably not sufficient to support the adoption of the process in the school. Curriculum innovation and change is initiated by the visible educational leaders of a school system. To effect the infusion of career education into the MCPS curriculum, those responsible for leadership and curriculum development must be visibly involved in fostering its adoption. While the inclusion of career education objectives in the school system's curriculum guides is an important first step, this must be followed by planned activities that assist the schools and classroom teachers actually adopt the change. This would include frequent involvement of the Central Office subject matter coordinators in demonstrating to teachers and especially resource personnel at the area office and school levels how actually to infuse the curriculum. It would also include frequent references to the infusion process in the coordinators' communications with the schools. In both cases, the level of involvement of the coordinators appears to have been minimal.

One clear impression obtained from the interviews with the subject matter coordinators in the Central Office was that a subtle resistance exists among those interviewed to any extensive involvement in the implementation of the process. While most of those interviewed state a set of strong beliefs regarding the need for career education and the value of the infusion process, this appears not to be followed by their actual involvement in fostering the implementation effort.

There are a number of reasons that may be contributing to this resistance. One reason has to do with what the central and area office coordinators view to be the expectations of the system for their involvement. As has already been outlined elsewhere in the report, clear communication of expectations for, and the importance of, their involvement has not been forthcoming from the system's top administration.

A second factor may be simply that the Central Office staff are extensively involved in so many curriculum development and supervision activities that the implementation of the career education process takes a "back seat."

A third reason potentially influencing this resistance to involvement may have to do with the training needs of the Central Office subject matter coordinators. The awareness level of those interviewed of the need for and the value of career education is relatively high. Whether the coordinators actually know how to infuse the subject matter curricula with career education is a separate question. Our impressions are that there is a need to train the coordinators in how to infuse the subject matter they supervise with career education concepts and learning activities.

Area Office Staff

The school system's administrative mechanism for implementing new programs in the schools places a heavy emphasis on the curriculum supervision roles of the area office elementary and secondary supervisors and the teacher specialists. The infusion process has, to a large extent, relied on this mechanism for encouraging and facilitating the adoption of the process in the schools. In the plans for the implementation of the infusion process, the area office staff has been charged with disseminating the materials and infusion curriculum guides and working as resource personnel with principals and teachers to encourage the adoption of the project. One supervisor in each of the three area offices has been designated as the primary liaison person between the area office and the Central Office career education staff.

For the most part, this mechanism for facilitating the countywide adoption of the process is not working. The area office staffs, with some exceptions, are minimally involved. Six of the 18 staff members interviewed reported that they had initiated activities in support of the infusion process. These activities included arranging for an in-service program for principals and teachers using the slide/tape presentation; making presentations to small groups of classroom teachers in mini-workshops; setting up a career education center in the media center of a school; circulating a list of available materials on career education; and purchasing career education instructional materials for use by the schools. Much of the activity has taken place in one area office, where the career education liaison person and teacher specialists in social studies and science have reported a strong interest in the infusion process. The two social studies specialists have reportedly used the new social studies curriculum guides and the career education infusion guides in their curriculum development activities in the schools. They have also arranged for workshops on career education for interested social studies teachers which were held after school hours and included a Central Office career education staff member as a resource speaker.

Yet, with the exception of the two social studies specialists who work primarily with the elementary schools, the activities reported by the six are probably not sufficient either in frequency or in depth to sustain the infusion implementation. Most of the efforts described above have been one-time only activities. Little evidence was found of ongoing planned activities such as follow-up visits and discussions with workshop participants or of any substantial work with principals and teachers.

For the remaining 12 area office supervisors interviewed, their major involvement has been in disseminating the career education infusion guides to the schools and arranging for speakers on career education at area office-sponsored meetings and workshops for principals and teachers. There has been almost no follow-up to either of these activities.

There are several factors which appear to be influencing this level of involvement. Some of these factors have been discussed elsewhere in the report but will be reported again here because of the special need to understand what is influencing the level of involvement of the area office staff.

One of the major reasons the area office staffs are not actively involved is that they perceive their own area office and the Central Office commitment to the implementation of the process to be low. The formal pronouncements of the administration supporting the need for increased attention to the career education needs of the students are not, in their view, followed up with the commitment of funds and personnel needed to effect such a change in emphasis. Other initiatives, such as basic academic skills projects, human relations and community relations are perceived as higher priorities by the area office staffs. Subtly, but forcefully, this communicates where the district's focus is to be located. As one of the coordinators put it, "We go through cycles of identifying what our thrust is to be for the year. Career education has not been one of them. If career education . . . and this project become a priority for the county, then I'll do my part."

A second, related factor is that the roles to be played by the area office staffs in implementing the infusion project have not been clearly communicated. As they understand it, the area office staff members are to disseminate the materials and guides to the schools and help to make principals and teachers aware of the need for infusion. For the most part, the staff members interviewed did not see a more active role for themselves beyond this, unless the area office administration(s) mandate more extensive involvement. From their perspective, this has not been forthcoming. In fact, several area office staff members pointed out that the multiple priorities established for area office staff by the area superintendent conflict with the expectations of the Central Office career education staff for more active involvement by the area office staff in facilitating the implementation of the infusion process in the schools.

A third factor has to do with several new curriculum projects, including the infusion process, that compete for the time and attention of the area office staffs. Despite the fact that these new curricula occur in the elementary and junior high grades, many of those interviewed expressed feelings of being overwhelmed by the tasks of managing several projects at once.

The inclusion of the career education infusion process is viewed as "just one more thing to do with little time to do it well." This sense of being overextended, with responsibilities for implementing a number of MCPS and area office specific programs, was one of the clearest messages obtained from the interviews.

A fourth factor concerns the level of expertise of the area office staff with regard to actually infusing the curriculum with career education concepts. With several exceptions, most of those interviewed rather candidly suggested that they lack the knowledge about career education to help teachers develop strategies and practical ways to infuse their subject matter curriculum with career education. One of the supervisors put the issue in perspective by stating that ". . .if the county expects us to do more than pass along information and 'encourage' teachers to infuse career objectives now and again, then we'll need further training. If things remain the way they are--I can get by." Most of the area office staff interviewed offered similar comments regarding their need for more "how to" training, that is, training focused on how to deliver career education within the subject matter confines of a specific academic discipline. The Department of Career and Vocational Education has conducted several countywide meetings and workshops during the period preceding the implementation of the infusion process and during the 1982-83 school year. The interview data suggest, however, that the additional "how to" training is needed.

There is a related issue that concerns the area office staffs' familiarity with (and the potential uses of) the career education resource materials, particularly the Career Education Infusion Scope and Sequence Guide, or the infusion guide as referred to in this report. Since the staff are charged with disseminating and supervising teacher use of the materials, they should evidence a substantial familiarity with them. With four exceptions, most of those interviewed reported having only a cursory knowledge of the guide. Several admitted to having "only briefly looked at it." Four of the staff did report having extensive knowledge of the guide and some of the other resource materials on career education available in the county. These are the same individuals who reported quite a bit of involvement with teachers and principals with the infusion process. However, most of the area office staff members interviewed evidenced little knowledge of the guide and its uses and even less knowledge of the other career education resource materials available in the county.

Principals

Most of the subject matter coordinators and teacher specialists interviewed at the central and area offices indicated that the building principals' involvement was the "key" to implementing the Career Education Infusion Process. It was frequently pointed out that the principal has the ultimate responsibility to oversee the adoption of new programs in the school. This would include arranging workshops and staff development for the faculty, providing leadership to bring about adoption of the process such that the faculty and staff focus their attention on it and coordinating school resources to support teacher efforts to try out the infusion process in their classrooms. From the discussions with the instructional leaders in MCPS it was clear that the successful adoption of the infusion process in the schools would be closely linked to the level of leadership provided by the principals.

The interviews with teachers and the 13 principals in the target schools found little evidence that the principals have provided any leadership to the infusion implementation of the process.

Only one of the the principals interviewed could describe specific in-service workshops for faculty devoted to career education or infusion. Instead, most of the principals cited instances where some aspects of career education were mentioned briefly as agenda items in faculty meetings. No faculty meetings had been devoted exclusively to presenting information to teachers regarding the concept and basic theories of career education or to providing suggested techniques for infusing subject-matter curricula. Other than one school-level administrator who mentioned the use of a career education coordinator as a guest speaker at a faculty meeting, the principals interviewed expressed no past use of area or Central Office subject matter coordinators, supervisors, or teacher specialists to conduct in-school in-service training for their faculty, nor did they express plans to do so in the future.

With regard to career education materials, most of the principals were unable to describe specific types of materials used in their schools. The study was unable to formulate an impression of the principals' perceptions regarding the quality of the career education materials because of their unfamiliarity with them. All but two of these administrators were aware of the existence of the infusion guide; yet most of them had only a cursory knowledge of it. Of thirteen interviewees, only three evidenced a working familiarity with this document. One notable exception was a middle school principal who became familiar with the contents of the guide and wrote a summary version of it, highlighting major points and strategies for teachers. This principal reportedly does a similar procedure with other new curricula and documents. The purpose given for this immense undertaking is to "save valuable teaching time."

As was reported elsewhere in this report, the 13 principals expressed positive attitudes toward career education and the need to provide career education programs and services in the schools. However, many of those interviewed expressed the belief that student needs were being met by the seperate courses and programs currently offered. These would include the career centers in the high schools, the career awareness elective courses, and the opportunities for student internships and shadowing experiences available in many of the schools.

Several factors were cited by the principals as inhibiting the adoption of the infusion process in their schools. These factors also appeared to influence the principal's level of involvement with the project:

- Parent and community concern with basic skills and academic achievement and the resultant pressure felt by the school to "get through the curriculum" and maintain high test scores

- Faculty resistance to innovation and change, particularly when several curriculum revision projects are being implemented in the schools

- Teacher resistance to infusing career education into subject matter disciplines and the belief that career education specialists are responsible for teaching career education

- The belief among faculty and staff that career education infusion is more appropriate for vocational and industrial arts or for elementary schools

One of the principals interviewed, while not actively involved in leading the implementation of the infusion process, reported using the career center staff and the career education teacher assigned to the school to work with teachers on the infusion process. The interviews with teachers and other staff members revealed considerable teacher awareness of the infusion process and the supporting curriculum materials available in the school. In addition, it was in this school that several teachers reported trying out the infusion concept in their teaching. The teachers suggested that the leadership provided by the career center staff and the career education teacher was primarily responsible for their involvement with the process. The career information assistant conducted an after-school workshop for teachers, met with individual departments to discuss the project, and worked with several volunteer teachers to help them locate materials and use the career center as a teaching resource.

In one of the middle schools, a classroom teacher who had had extensive involvement in developing the career education infusion guide was reported to have provided considerable leadership in the implementation of the infusion process in his school. He worked with teachers on an individual basis, demonstrating the use of the materials and the teaching techniques that could be employed when infusing the curriculum with career education. The other teachers on the staff, who were interviewed for the study, reported his interaction with them had had an important and positive impact on their attitudes toward the process and their willingness to experiment with the infusion concept.

Perhaps these two examples illustrate an alternative approach to providing leadership to the implementation of the infusion process. Using school level career education teachers and knowledgeable classroom teachers to facilitate the adoption of the project makes a great deal of sense. For one, they have the knowledge base about career education and the project to help teachers understand it. They also are not burdened by a number of other administrative responsibilities that preclude their involvement. They also have time, or could arrange it, to work with individual teachers and departments, showing them "how" to infuse. Many of the career education teachers, the career information assistants, and the experienced classroom teachers may need in-service training on how to play the consultant role. They may also need some form of supervision and coordination from the Central Office career education and the area office staffs. But given the low probability of extensive principal involvement, particularly at the high school level, this may be the only alternative to providing leadership for the project at the school level.

EXTENT OF IMPLEMENTATION IN THE CLASSROOM

A final issue investigated in this evaluation had to do with the extent to which curriculum infusion is actually taking place in the classrooms. The aim here was to obtain a picture of the status of career education infusion and to identify the factors that influence (or inhibit) teachers from including career education in their instruction.

Summary of Findings

The formal implementation of the career education infusion process began in the fall of 1982. At the time of the current evaluation, the spring of 1983, there was very little involvement with the Career Education Infusion Process among the 71 teachers included in the sample for this study. While this should not be considered surprising given the fact that the infusion process was quite new, the following specific findings are worthy of note:

- Few of the teachers were familiar with the Career Education Infusion Scope and Sequence Guide; an even smaller number is actually using the guide as a resource for planning instruction.
- Two teachers reported extensive and frequent inclusion of career education concepts in their classroom instruction.
- Seventeen teachers reported infrequent and occasional inclusion of career education in their instruction; most of the teachers in this group of 17 could be characterized as "trying out" the concepts of infusion.
- Twenty-two of the teachers reported taking actions to familiarize themselves with the ideas and materials associated with the infusion process, but not having actually tried out the concepts in the classroom.
- Thirty of the 71 teachers indicated no involvement with the infusion process, nor the materials, and no plans to do so in the future.
- Teachers of English and social studies were more likely to be involved with the infusion process, or at least receptive to it, than teachers of science and mathematics.
- Teacher attitudes toward the infusion process, their perception of the low priority given to it in MCPS, the pressures teachers feel to "cover" the academic curriculum, and the absence of school-based training and curricular supervision acted as serious disincentives for teacher adoption of the process.

Discussion

Nineteen of the 71 teachers evidenced a thorough familiarity with the curricular support materials for career education, including the Career Education Infusion Scope and Sequence Guide. A smaller number of teachers reported knowledge of the other materials available in the schools or the area offices. Interestingly enough, most of those teachers who reported knowledge of the materials came from two schools where the career education teacher and/or the career information assistant had made attempts to work with teachers as a part of the dissemination activities. In the remaining 11 schools, the teachers interviewed evidenced and reported a cursory or very limited knowledge of the guide, how to use it, or how it might apply to their teaching situations.

When viewed from the broad question of whether, after eight months of formal implementation, classroom teachers are infusing the curriculum with career education, the answer obtained from the interviews with the sample of 71 teachers has to be that infusion has not "taken hold" in MCPS. Only two of the teachers reported systematic and frequent efforts to include career education in their plans for teaching. Both of these teachers could be characterized as innovative, flexible, and committed to the concept of career education. Many of the other teachers were at varying stages of concern regarding the infusion process. The preceding sections of this report, dealing with teacher attitude and in-service training, have fully outlined the background and reasons for this level of teacher involvement. What is presented next is a quantification of the level of teacher implementation of the infusion process, using the Level of Use data obtained from the interviews.

Exhibit 42 displays the Level of Use ratings assigned to each of the 71 classroom teachers interviewed in this study of the career infusion process. For the most part, the study was unable to fully utilize this mechanic for studying the extent of implementation of the infusion process, the primary reason for this being that the majority of teachers interviewed were unfamiliar with the process. The Level of Use mechanism presupposes that respondents are aware of a concept or process and can be viewed as participants. From the analysis presented earlier, it should be clear to the reader that, by and large, teachers who were unfamiliar with the career infusion effort were being interviewed. Still, it was found that about half of the teachers interviewed were at various stages of involvement with the Career Education Infusion Process and the Career Education Infusion Scope and Sequence Guide. Therefore, the Level of Use mechanic was used as one method of quantifying what has been discussed in previous sections. As reported in Exhibit 42, 30 of the respondents were classified at the Level 0 (Nonuse) stage, indicating that they had little or no knowledge of or involvement with the infusion process and the infusion guide. Fourteen, or a little under one-fourth, of the teacher respondents were classified at the Level I (Orientation) stage. This stage reflects activities engaged in by the teacher to acquire information and explore the value and feasibility of the infusion process. It indicates little or no involvement in actually infusing the curriculum. Eight of the teachers were placed in the preparation category (Level II). At this stage, teachers are actively preparing for their first use of the infusion guide or preparing to initiate some infusion activity in their classrooms. Just under one-quarter (17) of the teachers were categorized at Level III (Mechanical Use). This stage is characterized by somewhat superficial and infrequent use of the guide and/or the concept of infusion. At this stage, the teachers are attempting to learn how to use the infusion document and to try out on a limited basis infusion strategies in their teaching. Only two of the 71 teachers interviewed were routinely using career education instructional strategies in their class-

EXHIBIT 42

Classification of Teachers Interviewed by Rated Level of Use of Career Education Infusion

Level of Use Classification Category	Number of Teachers Rated in Each Classification
Nonuse 0	30
Orientation I	14
Preparation II	8
Mechanical Use III	17
Routine and Refinement IV	2
Total Number Rated	71

rooms. These two teachers appeared to have a thorough understanding of the concept of infusion and how it is implemented and delivered. It is interesting to note that one of these teachers had received no MCPS-sponsored in-service training and received little support from the school. The second teacher had participated in a MCPS staff development program on career education. She also participated in the development of the Career Education Infusion Scope and Sequence Guide.

As a caveat, careful use of these classification data is suggested. It has been included here only as a means of summarizing the involvement of the 71 teachers that were interviewed. It is suggested, however, that MCPS consider the use of this process as a means of monitoring the implementation of this process over time. It does offer a useful system for gauging the installation of a curriculum innovation and for monitoring the numbers of teachers involved in it.

SUMMARY AND RECOMMENDATIONS

This study of the implementation and status of the Career Education Infusion Process showed limited adoption of the project in the 13 middle, junior high, and high schools comprising the target schools for the study. Very few classroom teachers are routinely infusing the curriculum with learning experiences related to career education. Barriers to a more widespread adoption of the infusion process are briefly summarized in the following.

- The attitudes of educators in MCPS toward career education and the need for career education programs and services in the schools are relatively positive. However, career education and the infusion process are not perceived as a high priority by the school system's senior administrators. As a consequence, the central and area office staffs and the schools do not devote sufficient resources and attention to the infusion process.

- To a large extent, the implementation of the infusion process is led by a small staff of professionals in the Central Office's Department of Career and of Vocational Education. Subject matter coordinators at the Central Office and the supervisors and teacher specialists in the area offices and the principals have not provided sufficient leadership for the implementation effort. For the most part, their efforts have been limited to the distribution of instructional materials and curriculum guides to the schools. Area office staffs and principals are not providing teacher in-service training to promote the adoption of the process, nor are they providing teachers with curriculum supervision related to the process. As a result, the teachers are not knowledgeable about the infusion process.

- The central and area office subject matter coordinators, supervisors, and teacher specialists are uncertain of the expectations for the roles they are to play in the implementation effort. To some extent, there is a discrepancy between the Central Office career education staff's expectations for the level of involvement of the area office staff and the priorities for their involvement established by the area offices.

- Principals are hampered in their efforts to provide curriculum supervision to the infusion process by the amount of time and attention required by school administrative duties, community relations efforts, and labor relations activities. As a consequence, they involve themselves minimally in monitoring the implementation and adoption of the infusion process in their schools.

- Principals and classroom teachers display considerable frustration with the pressures they experience to implement what they view as "add-on" programs such as the infusion process, while at the same time being held accountable for covering the content objectives of the secondary school curriculum.

- The classroom teachers interviewed for this study cited several important disincentives influencing their low level of involvement with the infusion process:

    - The belief that coverage of the academic subject matter has priority over teaching career education concepts

    - The perception that the infusion process is an incursion on their teaching time needed to "cover the curriculum" and that infusion would require considerable preparation and planning time

    - The belief that career education should be covered in special courses or programs by teachers trained in career education as a specialty

    - The perception that they lack the knowledge and expertise about careers, occupations, and job entry requirements to infuse career education effectively in their classrooms

The findings suggest that in the secondary schools, the career education infusion process has barely begun to be implemented. Despite the fact that the process has only recently been fully introduced to the schools, the lack of progress to date and the attitudes toward implementation evidenced in the interview data suggest that some important barriers to implementation exist. Specifically, if the program is to be implemented effectively and fully, the following additional supports are needed:

1. MCPS should provide additional resources to conduct in-service programs for area office staffs, principals, and teachers. This training should focus more intently on demonstrating how career education can be effectively and efficiently integrated into the ongoing curricula. The training should include techniques for teaching, instruction in use of the available materials and resources, and, for the area office staff, instruction in how to demonstrate this to others. Classroom teachers, in particular, need training in techniques for using the guide and the Programs of Study as planning tools for career education. They need to see actual demonstrations of methods for including career education concepts in their teaching. They need to be convinced that

infusion can take place without disrupting the objectives they have "to cover" in their curriculum. Use of the career education teachers and career information assistants as resources for teachers should be built into the in-service training so that teachers will recognize that they are not without support in implementing the infusion process. In addition, the training should be coupled with resource assistance and guidance from the area office staffs, including meetings with individual teachers and departments to promote the adoption of the process.

2. MCPS should consider the potential benefits of employing a full-time career education resource teacher in each of the area offices. The resource teachers would provide resource assistance to the schools, develop and conduct teacher in-service training specifically focused on the infusion process, and work with individual teachers and departments to promote the adoption of the process. This evaluation has found that the implementation effort lacks identifiable area office leadership and that area office staffs and principals do not have enough time to devote to the implementation of the process. The use of three resource teachers would communicate effectively the importance attached to career education by the central and area offices and, at the same time, would provide the implementation effort with necessary leadership and expertise at the area office level.

3. The school-based career education teachers and the career information assistants in the high schools are a potentially useful resource in implementing the infusion process. They have the necessary knowledge of career education and the infusion process to work effectively with classroom teachers. MCPS should consider using the career education teachers and the assistants to lead the implementation efforts in the high schools. Presently, their roles and activities for the most part are too confined to allow them to take a leadership role. With training and supervision, the teachers and assistants could provide extensive resource assistance to the schools.

4. The schools' subject matter resource teachers, or department chairs, are another potential support group for the infusion process. The resource teachers for English, social studies, science, and mathematics should be given the responsibility of helping to implement the process within their departments. They should be provided with in-service training specifically focused on how they are to work with the teachers in implementing the process. Building principals should develop objectives with the resource teachers as a part of their management objectives. Area and central office staffs as well as the school-based career education personnel should be considered the active resources for the department's implementation efforts.

5. The vital point, of course, is the classroom teachers' efforts to implement infusion of career education concepts into their curriculum. This evaluation found that after eight months there was little evidence that classroom teachers felt any accountability for or "ownership" of the process. Building

> principals need to communicate to the teachers the expectation that career education infusion is a legitimate part of the curriculum for which teachers are accountable. The teachers' efforts to infuse their curriculum should become part of their yearly evaluations. As it stands now, teacher involvement is voluntary and heavily dependent on attitudes and incentives.

A second option to providing these supports is, of course, to deemphasize the career infusion process at the secondary school level or to postpone full implementation. Such a decision must, however, be made within the context of state requirements, specifically those of Project Basic and of Bylaw BA.04.09. Choosing among these alternatives may not be simple. What is clear is that the present situation, characterized by conflicting messages, should not be allowed to persist. It is counterproductive both for staff who are trying to carry out the process and schools who feel torn in several directions at once.